

**OWNER-CMAR CONTRACT FOR CONSTRUCTION**

THIS CONSTRUCTION MANAGER AT RISK CONSTRUCTION SERVICES CONTRACT (the "Contract") is made and entered into as of \_\_\_\_\_, 2023 between the City of Las Vegas (the "Owner"), a municipal corporation of the State of Nevada, and CORE WEST, INC., a Corporation organized and existing under the laws of the State of Nevada and authorized to do business in the State of Nevada (the "Construction Manager at Risk" or "CMAR"). The City and the CMAR are sometimes individually referred to herein as "Party" and collectively as "Parties."

**RECITALS**

WHEREAS, the Owner intends to construct **22.MWA378.C2-JH, Downtown Civic Center Building and Plaza** (the "Project"); and

WHEREAS, the Owner is authorized under NRS 338.169-338.1699 to contract with a qualified CMAR for an eligible public work following the selection procedures contained therein; and

WHEREAS, the Owner and CMAR have entered into a Contract for Construction Manager at Risk Preconstruction Services for the Project; and

WHEREAS, the Owner and CMAR intend to execute a multi-phase and multi Guaranteed Maximum Price (GMP) for each phase approach;

WHEREAS, the Owner desires to retain a contractor to perform construction services, and the CMAR desires to provide these services hereinafter set forth below;

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the Parties hereto, intending to be legally bound, agree as follows:

1. **PROJECT DESCRIPTION.** The Project consists of the construction more fully set forth and described in the Contract Documents.
2. **CONSTRUCTION COVENANT.** The CMAR hereby covenants and agrees to undertake and complete the Work (defined in the Contract Documents) in a good, substantial and workmanlike manner. The CMAR further agrees to provide the materials, labor, tools, and equipment necessary to properly and expeditiously complete the Work in strict accordance with the requirements of the Contract and other Contract Documents and to accept payment of the Contract Amount, subject to any adjustments under the terms of the Contract, as complete compensation therefor (including all of the expenses, direct or indirect, incurred by the CMAR in connection therewith).
3. **CONTRACT AMOUNT.** For furnishing all labor, materials, equipment, tools and services and for doing everything required by this Contract and the other Contract Documents, the Owner will pay and the CMAR shall accept the Contract Price, as defined in the General Conditions, which in no event shall exceed the **Guaranteed Maximum Price of Five Million Seven Hundred Eighty-One Thousand Eight Hundred Sixty-Six Dollars (\$5,781,866)**. The Guaranteed Maximum Price (GMP) includes, Cost of the Work, General Conditions, CMAR Fee, CMAR Insurance and Bonds, and CMAR Contingency. The total Contract Amount of **Six Million Nine Hundred Eighty-One Thousand Eight Hundred Sixty-Six Dollars (\$6,981,866)** includes the GMP listed above and an Owner's Contingency allowance of **One Million Two Hundred Thousand Dollars (\$1,200,000)**. Use of the Owner Contingency\*\*\* allowance may only be authorized through Owner-approved change orders. The aforementioned amount is subject to increase or decrease as provided in the Contract.

The (Phase 1 of 3), Phase I CMAR's Guaranteed Maximum Price (GMP) for the entire Work on the Project consists of:

A. Cost of the Work (excluding General Conditions)	<b>\$4,738,742</b>
B. General Conditions*	<b>\$522,483</b>
C. CMAR's Fee*	<b>\$216,231</b>
D. CMAR's Contingency**	<b>\$144,547</b>
E. Insurance and Bonds	<b>\$159,863</b>
<b>Phase I Total Guaranteed Maximum Price</b>	<b>\$5,781,866</b>

Percentage Split of GMP Savings:	<u>Owner</u>	<u>CMAR</u>
	<b><u>70 %</u></b>	<b><u>30 %</u></b>

Savings includes underrun of the total Guaranteed Maximum Price, including CMAR's contingency remaining at the end of the project; savings does NOT include unused Owner's Contingency. One hundred percent (100%) of the unused Owner's Contingency, shall be retained by the Owner.

\* The General Conditions and CMAR's Fee shall be calculated as a percentage of the Cost of Work.

\*\* The **CMAR's Contingency** shall be used at the discretion of the CMAR; however, the CMAR shall notify the Owner in writing of the intent to utilize the CMAR's contingency prior to any expenditures.

\*\*\* **Owner's Contingency** shall only be used at the discretion of the Owner and shall be agreed upon by Owner in writing. Each expenditure shall include all associated Cost of Work, CMAR General Conditions, CMAR fee, and CMAR insurance and bonding; when calculating the General Conditions, CMAR fee, and CMAR insurance and bonding, both parties agree to the same percentages used to calculate the GMP Cost of Work and CMAR insurance and bonding. The Owner's Contingency shall consist of 1) Conflicts and Contingencies and 2) Risk Allowance.

**4. DOCUMENT INCORPORATION.** The Contract consists of this three (3) page document and the following documents incorporated herein by this reference as a part hereof:

- A. General Conditions, Exhibit "A" attached hereto
- B. GMP Schedule of Values, Exhibit "B" attached hereto
- C. Schedule of GMP Allowances, Qualifications and Clarifications, Exhibit "C"
- D. Exhibit "C-1" Owner Contingency attached hereto
- E. Technical Specifications and Drawings for the Project, Exhibit "D" and Addenda, if any attached hereto
- F. Copy of Key Personnel List, Exhibit "E" attached hereto
- G. Geotechnical and Environmental Reports, Exhibit "F" attached hereto
- H. List of Work Estimated by CMAR to Exceed 1% of Cost of Public Work, Exhibit "G" attached hereto
- I. Baseline Project Schedule, Exhibit "H" attached hereto
- J. Prevailing Wage Rates, Exhibit "I" attached hereto

**5. COMMENCEMENT AND CONTRACT TIME.** Time is of the essence in the performance and completion of this Contract. The CMAR shall commence the Work on the date set by the City in the Notice to Proceed, and shall achieve Substantial Completion of the entire Work for Phase I GMP within **(147) calendar days** thereafter, subject to adjustments of the Contract Time as provided in the Contract Documents.

**6. LIQUIDATED DAMAGES.** The CMAR agrees that time is of the essence of this Contract and further agrees to satisfactorily complete the Work in accordance with the Contract Documents. If the CMAR shall neglect, fail, or refuse to complete the Work for any reason within the time specified for Substantial Completion in the Contract plus any adjustments to the Contract Time resulting from approved Change Orders, then the CMAR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner, as liquidated damages and not as a penalty, as follows:

Liquidated damages shall not accrue after the date of Substantial Completion provided the CMAR completes all punch-list work within thirty (30) calendar days after the date of the Certificate of Substantial Completion. Liquidated damages shall accrue at the sum of **\$1,500 per calendar day** if the CMAR does not complete all punch-list work within the time limit stipulated in the Certificate of Substantial Completion.

The said amounts are fixed and agreed on by and between the CMAR and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the true value of the damages which the Owner will sustain by failure of the CMAR to complete the Work on time, such as architectural and engineering inspection, supervision and contract administration, loss of revenue, cancellation costs for schedule performances, interest charges, delays caused to other construction activities of Owner by failure to perform this Contract, and other damages, some of which are indefinite and





# EXHIBIT A

## **EXHIBIT A - GENERAL CONDITIONS**

### **SECTION 1. DEFINITIONS**

### **SECTION 2. CMAR'S RIGHTS AND RESPONSIBILITIES**

- 2.01 Responsibility for the Security of the Work and Project Site
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## SECTION 1. DEFINITIONS

The following definitions shall apply to the Contract:

- a) **“Addendum”** means a written change or other written instrument issued by the Owner via the City of Las Vegas Purchasing and Contracts office that amends or otherwise changes the GMP Setting Documents prior to submission of the GMP.
- b) **“Applicable Law”** means (1) any federal, state, or local law, code, or regulation; or (2) any formally adopted and generally applicable rule, requirement, determination, standard policy, implementation schedule, or other order of any governmental body having appropriate jurisdiction to the extent it relates specifically to the construction of the project and the responsibilities of the CMAR under the Contract. Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted therein, and the Contract shall be read and enforced as though such provision were included therein, and if through mistake or otherwise, any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall be physically amended to make such insertion or correction. The Owner acknowledges that the respective design professionals and/or Owner, and not the CMAR, are responsible for Contract Document compliance with Applicable Law. This acknowledgement in no way limits the responsibility of the CMAR to diligently perform the Scope of Services in the Contract for Construction Manager at Risk Preconstruction Services for \_\_\_\_\_ dated Insert Preconstruction Services Execution Date, between the Owner and the CMAR.
- c) **“As-Builts”** means record drawings or drawings representing the ‘as-built’ condition of the Work.
- d) **Baseline Project Schedule”** means the initial schedule of the Work submitted by the CMAR and accepted by the Owner at the outset of the Project which is used as the baseline for comparing the progress of the Project. Such schedule is further described in Section 01330 of the Technical Specifications.
- e) **“Certified Payroll Report”** means the record required to be compiled, maintained, and submitted by the CMAR and its Subcontractors to the Owner in compliance with NRS 338 and any other provisions of Nevada law.
- f) **“Construction Change Directive”** means a written order from the Owner directing immediate changes in the Work for which a modification to the Contract Amount, Contract Time or other provision of the Contract may be appropriate but may not have been negotiated at the time of issuance. The CMAR is to proceed immediately with the implementation of the Construction Change Directive.
- g) **“Change Order”** means a written order to the CMAR signed by the Owner and CMAR issued after execution of the Contract that authorizes a change in the Work, Contract Amount or Contract Time. Except as allowed by the Contract Documents, the Contract Amount or Contract Time may be changed only by the issuance of a Change Order. The execution of the Change Order indicates the CMAR's agreement to the terms set forth therein including the adjustment, if any, in the Contract Amount or Contract Time.
- h) **“City”** means the City of Las Vegas, a municipal corporation of the State of Nevada.
- i) **“CMAR Fee”** means the CMAR overhead and profit as further defined in Section 4 of this Contract.
- j) **“CMAR General Conditions”** means the costs as further defined in Section 4 of this Contract.
- k) **“Contingency- CMAR”** means the allowance that may be utilized by the CMAR to cover certain Cost of the Work as further defined in these General Conditions.
- l) **“Contingency – Owner”** means the Owner's Contingency shall consist of 1) Conflicts and Contingencies, 2) Risk Allowance.
- m) **“Conflicts and Contingencies - Owner”** means the method of payment for additional work as directed by the Owner and is included in the Owner Contingency; Exhibit C-1.
- n) **“Construction Manager at Risk” (CMAR)** means the Contractor with whom the Owner has entered into this Contract to perform the Work.
- o) **“Construction Manager at Risk Work”, “CMAR Work” or “Work”** means everything required to be furnished and done for and relating to the construction of the Project by the CMAR pursuant to this Contract. CMAR Work includes the employment and furnishing of all construction services, labor, materials, equipment, supplies, tools, scaffolding,

transportation, utilities, temporary facilities and other things and services of every kind whatsoever necessary for the full performance and completion of the CMAR's responsibility to obtain Permits, except as detailed in the Technical Specifications and "Exhibit" Contract Documents attached hereto, procurement of equipment and materials, construction, management, coordination and related obligations with respect to the construction of the Project under this Contract, including all completed structures, assemblies, fabrications, acquisitions and installations, and all of the CMAR's administrative, accounting, record keeping, notification and similar responsibilities of every kind whatsoever under this Contract pertaining to such obligations. A reference to CMAR Work shall mean any part and all of the CMAR Work unless the context otherwise requires, and shall include all extra CMAR Work authorized by Change Order or Work Change Directive.

- p) **"Consultant"** means the licensed Architect, Engineer or other design professional and its consultants, retained by the Owner to perform design services for the Project.
- q) **"Contract"** means the Owner-CMAR Construction Contract, which does not come into existence until executed by all parties, and all other documents incorporated therein by reference.
- r) **"Contract Amount"** means the compensation to be paid the CMAR to construct the Work and is included in the "Amount of Contract" section of the Owner-CMAR Construction Contract by the Owner.
- s) **"Contract Award Date"** means the date this Contract is awarded by the Owner to the CMAR and date this Contract becomes effective.
- t) **"Contract Documents"** means the Owner-CMAR Construction Contract, General Conditions, Technical Specifications, Drawings and, if applicable, the Addenda or other Modifications made to the aforementioned documents.
- u) **"Contract Time"** means the number of days set forth in the Owner-CMAR Construction Contract for constructing the Work for achieving Substantial Completion of the Work, including the authorized extensions thereto, which commences to start with the date set forth in the Notice to Proceed.
- v) **"Cost of the Work"** means the cost to construct the Work, as further defined in Section 4.05.a.
- w) **"Critical Path"** means the path through the project schedule indicating the minimum time in which it is possible to complete the Work, and the tasks that, if delayed, will delay Substantial Completion of the Work."
- x) **"Date of Substantial Completion"** means the date established and certified by the Owner when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work, or designated portion thereof, for the use for which it is intended.
- y) **"Day"** means a calendar day unless otherwise specifically designated.
- z) **"Designated Representative"** means the person authorized pursuant to Section 3.01 (Designated Representative) of the Contract to act or make decisions on behalf of the Owner.
- aa) **"Drawings"** mean the diagrammatic representations of the requirements for construction of the Work that are incorporated as a part of the Contract.
- bb) **"Final Completion"** occurs on the date when the obligations of the CMAR under this Contract are complete and accepted by the Owner and final payment becomes due and payable.
- cc) **"Force Majeure"** The CMAR shall be excused from performance hereunder during the time and to the extent that the CMAR is prevented from obtaining, delivering, or performing in the customary manner, disruptions in labor or materials resulting from a health crisis regardless of whether epidemic, pandemic or isolated to areas from which such labor and materials are supplied; by acts of God, fire, war, loss or shortage of transportation facilities, lockout or commandeering of raw materials, products, plants or facilities by the government or acts of terrorism. The CMAR shall provide the Owner evidence that nonperformance is due to other than fault or negligence of the CMAR.
- dd) **"Good Construction Practices"** means those methods, techniques, standards and practices which, at the time they are to be employed and in light of the circumstances known or reasonably believed to exist at such time, are generally recognized and accepted as good equipping, installation, construction, commissioning and testing practices for the construction and improvement of capital assets in the construction industry as followed in the southwestern region of the United States.

- ee) **“Governing Body”** means the Las Vegas City Council or any federal, state, regional or local legislative, executive, judicial or other governmental board, agency, City, commission, administration, court or other body, or any official thereof having jurisdiction.
- ff) **“Guaranteed Maximum Price” or “GMP”** means the maximum amount which the Owner is obligated to pay CMAR for construction of the Project, inclusive of all costs, general conditions, and fees of CMAR in connection with the Work.
- gg) **“GMP Setting Documents”** means the Technical Specifications and Drawings prepared by the Architect/Engineer, reviewed by the CMAR during Pre-Construction Service and utilized by the CMAR to prepare the GMP.
- hh) **“Hazardous Material”** means any substance or material identified now or in the future as hazardous under any federal, state or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirement governing handling, disposal or clean-up.
- ii) **“Insurance Requirement”** means any rule, regulation, code, or requirement issued by any insurance company which has issued a policy of required insurance under this Contract, as in effect during this Contract, compliance with which is a condition to the effectiveness of such policy.
- jj) **“Key Personnel”** means those individuals identified by CMAR in its Proposal. Each of these individuals shall be required to have, and to maintain, the appropriate training for their respective positions and shall be full time in such positions.
- kk) **“Labor Commissioner”** means the person appointed and functioning pursuant to NRS Chapter 607 who is charged with enforcing the labor laws of the State of Nevada.
- ll) **“Lien”** means any and every lien against the Project or against any monies due or to become due from the Owner to the CMAR under this Contract, for or on account of the Work, including mechanics’, materialmen’s, laborers’ and lenders’ liens.
- mm) **“Major Change in the Work”** means changes to the Work ordered by the Owner in writing that involve adjustment to the Contract Amount or extension of the Contract Time and may be inconsistent with the Construction Documents.
- nn) **“Material Notice to Proceed”** means the document issued by the Owner establishing the date the CMAR is allowed to begin ordering materials for incorporation into the Work but does not allow construction activity at the site prior to issuance of the Notice to Proceed unless otherwise agreed in writing by the Owner.
- oo) **“Minor Change in the Work”** means changes to the Work ordered by the Owner in writing that do not involve adjustment to the Contract Amount or extension of the Contract Time and are not inconsistent with the Construction Documents.
- pp) **“Modification”** means (i) any Addenda related to the GMP Setting Documents (ii) a written Change Order, (iii) a written interpretation, (iv) a written order issued by the Owner for a minor change in the Work, or (v) a written amendment to the Contract signed by both parties.
- qq) **“Notice of Award”** is the letter issued by the Owner notifying the CMAR of the award of the Project by the City Council, authorizing the CMAR to proceed with the procurement of the bonds and insurance, and including the Owner-CMAR Contract for execution and return to the Owner.
- rr) **“Notice to Proceed”** means the document issued by the Owner that (i) establishes the date the CMAR is allowed to begin construction activity at the site, and (ii) commences the running of the Contract Time.
- ss) **“Owner”** means the City of Las Vegas.
- tt) **“Owner’s Designated Representative”** means Owner’s employee identified in Section 3.01 (Designated Representative) of the Contract.
- uu) **“Permits”** means all orders of approval, permits, licenses, authorizations, consents, certifications, exemptions, rulings, entitlements and approvals issued by a Governmental Body of whatever kind and however described which are required under Applicable Law to be obtained or maintained by any person with respect to the Construction of the Project.

- vv) **"Product Data"** means the illustrations, standard schedules, performance charts, instructions brochures, diagrams and other information furnished by the CMAR to illustrate a material, product or system for some portion of the Work.
- ww) **"Progress Record Documents"** means the set of documents maintained by the CMAR indicating the actual as-built revisions to the Work and Contract Documents, which are further described in Section 01700 of the Technical Specifications.
- xx) **"Progress Schedule"** means a version of the schedule for the Work provided by the CMAR subsequent to the Baseline Project Schedule, pursuant to the requirements of the Contract related to issues such as time extensions, claims, payments, tardiness and recovery.
- yy) **"Project"** means the total construction of which the Work performed provided under the Contract may be the whole or a part thereof and which may include construction by the Owner or by other contractor hired by the Owner.
- zz) **"Promptly"** means without delay and on time.
- aaa) **"Reasonable Time"** means ten (10) business days, except where otherwise specified, or unless City Council action is required.
- bbb) **"Request for Information or RFI"** means a written request initiated by the CMAR to obtain clarification or information regarding the Project.
- ccc) **"Samples"** mean the physical examples that illustrate the materials, equipment or workmanship, to be used by the CMAR and that establish standards for the judgment of the Work.
- ddd) **"Shop Drawings"** mean the drawings, diagrams, schedules and other data specially prepared for the Work by the CMAR or any Subcontractor, manufacturer, Supplier or distributor to illustrate some portion of the Work.
- eee) **"Site"** means the location of the Project where the Work is to be performed.
- fff) **"State"** means the State of Nevada.
- ggg) **"Subcontractor"** means any individual or entity who is sublet any part of the Work by the CMAR. There is no contractual relationship between the Owner and the Subcontractor who performs work or services for the CMAR.
- hhh) **"Submittal"** means the item required by the Contract Documents to be provided to the Owner for information, review, or approval as indicated. Unless otherwise specifically indicated, Submittals are not a part of the construction and do not become part of the Contract Documents. Schedules, Shop Drawings, Product Data, and Samples are typical examples of a Submittal.
- iii) **"Substantial Completion"** means the point in time when, in the opinion of the Owner, construction is sufficiently complete, in accordance with the Contract Documents, that the Owner can occupy or utilize the Work, or designated portion thereof, for the intended use of the Project. This is not necessarily final acceptance of the Project or any portion thereof. A Certificate of Substantial Completion shall be issued by the Owner establishing the Date of Substantial Completion and noting any incomplete or unacceptable portions of the Work that must be completed or corrected prior to final acceptance of the Work. The date of such Certificate shall commence the running of the warranty periods required by the Contract Documents for the completed portions of the Work, except as otherwise provided in the Contract Documents or Certificate of Substantial Completion.
- jjj) **"Supplier"** means an entity selected by CMAR or Subcontractor of any tier for the supply of any materials or equipment for the Project.
- kkk) **"Tax"** means any tax, fee, levy, duty, impost, charge, surcharge, assessment or withholding, or any payment-in-lieu thereof, and any related interest, penalty or addition-to tax.
- lll) **"Technical Specifications"** means the written descriptions of the requirements for the Work incorporated/attached as Exhibit "D" hereto as a part of the Contract.

## SECTION 2. CONTRACTOR'S RIGHTS AND RESPONSIBILITIES

### Section 2.01 Responsibility for the Security of the Work and Project Site

- a) The CMAR is responsible at all times for the Work and for the Project site regardless of whether or not the Owner has required any insurance coverages (such as Builder Risk Insurance) which would have protected the interest of the CMAR and the Owner. The CMAR shall conduct its operations under the Contract in a manner as to avoid the risk of damage, injury, loss or theft by any means (including acts of God, vandalism or sabotage) to the Work or to the property of the CMAR, Owner or any other person. The CMAR shall promptly take such reasonable precautions, which are necessary and adequate against any and all conditions involving such risk of damage, injury, loss or theft. The CMAR shall continuously inspect the Work (including the materials and equipment used in connection therewith) to discover and determine if any such conditions exists and shall be solely responsible for correcting such conditions.
- b) The CMAR shall cooperate with the Owner on all security matters and shall promptly comply with any security requirements established by the Owner. Such compliance with these security requirements shall not relieve the CMAR of its responsibility for maintaining proper security for the above-noted items, nor shall it be construed as limiting in any manner the CMAR's obligation to undertake such reasonable action as may be required to establish and maintain secure conditions at the Work site. The CMAR shall prepare and maintain accurate reports of incidents of loss, theft or vandalism and shall furnish these reports to the Owner in a timely manner.

### Section 2.02 Responsibility for Protecting Adjacent Areas

- a) Unless otherwise specifically provided in the Contract, the CMAR shall not perform the Work in a manner that would disrupt or otherwise interfere with the operation of any pipeline, telephone line, electric transmission line, ditch or other structure which may be on or adjacent to the Work site, or enter upon lands in their natural state until approved by the Owner. Thereafter, and before it begins the Work, the CMAR shall give due notice to the Owner of its intention to start the Work. The CMAR shall not be entitled to an increase in the Contract Time, or extra compensation on account of any postponement, interference or delay of the Work caused by such line, ditch or structure.
- b) The CMAR shall preserve and protect cultivated areas and planted vegetation (such as trees, plants, shrubs and grass) on or adjacent to the Work site that the Owner has determined does not unreasonably interfere with the performance of the Work (including the operation of equipment or stockpiling of materials) and shall repair or restore any damage thereto.

### Section 2.03 Responsibility for Construction Safety

- a) The CMAR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The CMAR shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.
- b) The CMAR shall take all reasonable precautions for the safety of all employees on the Work and all other persons who may be affected thereby. The CMAR shall designate a responsible member of his organization whose duty shall be the prevention of accidents.
- c) Except as otherwise stated in the Contract, if the CMAR encounters any materials reasonably believed to be asbestos, lead or polychlorinated biphenyl (PCB) on the Project site, the CMAR shall immediately stop work in the area affected and give notice of the condition to the Owner. The CMAR shall not resume the Work in the affected area without written direction by the Owner.

### Section 2.04 Responsibility for Clean-Up of the Work Site

The CMAR shall, at all times, keep the work area in a neat, clean and safe condition. Upon completion of any portion of the Work, the CMAR shall promptly remove all of its equipment, temporary structures and surplus materials not to be used at or near the same location during later stages of work. Upon completion of the Work and before final payment is made, the CMAR shall, at its expense, dispose of all unnecessary vegetation, structures, rubbish, unused materials, and other equipment and materials belonging to it or used in the performance of the Work to the satisfaction of the Owner in accordance with all applicable federal, state, and local laws, ordinances and codes. The CMAR shall leave the premises and Work site in a neat, clean, and safe condition. In the event of the failure to comply with the foregoing, the Owner may satisfy the requirements of this Section at the CMAR's expense.

**Section 2.05 Responsibility for Construction Procedures**

- a) The CMAR shall supervise and direct the Work using its best skill and attention. The CMAR shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
- b) The CMAR shall not be relieved from its obligations to perform the Work in accordance with the Contract either by the activities or duties of the Owner in the administration of the Contract, or by inspections, tests or approvals required or performed by persons other than the CMAR.

**Section 2.06 Responsibility for Employment of Competent Project Personnel**

The CMAR shall employ competent project personnel that are acceptable to the Owner to oversee various aspects of the Project. Any substitution of the personnel defined in this section is strongly discouraged and will be permitted only after a written request for such substitution has been made and approved by the Owner.

**a. Project Manager.** The Project Manager shall to oversee all Work on the Project. The Project Manager shall have the authority to act on the CMAR's behalf on contract-specific issues. The Project Manager is to be present at progress meetings, and be involved in the chain of dispute resolution, Change Order negotiation, schedule development, public involvement, and other project specific activities where additional CMAR oversight is required to ensure full compliance with Contract requirements. The Project Manager shall continue in that capacity for the duration of the Project, unless the Project Manager ceases to be on the CMAR's payroll or the Owner otherwise agrees to a substitution in writing. Written approval by Owner of a Project Manager substitution request will not be unreasonably withheld.

**b. Superintendent.** The Superintendent shall manage all Work on the Project, including all subcontracted Work. The Superintendent shall represent the CMAR and all communications given to the Superintendent shall be as binding as if given to the CMAR. The Superintendent shall be available 24 hours a day and shall be on the construction site when there is any construction activity taking place on the Project. During day and night work schedules, the Superintendent may appoint additional deputy superintendents, as approved by the Owner.

The Superintendent is to be present at progress meetings and be available as needed to meet with the Owner regarding the progress of the Work and related activities. Failure to maintain a Superintendent on the Project site at all times work is in progress shall be considered a material breach of this Contract, entitling the Owner to terminate the Contract or, alternatively, issue a stop Work order until the Superintendent is on Project site.

The Superintendent shall continue in that capacity for the duration of the Project, unless the Superintendent ceases to be on the CMAR's payroll or the Owner otherwise agrees to a substitution in writing. Written approval shall not be unreasonably withheld.

**Section 2.07 Responsibility for Uncovering and Correcting the Work**

- a) If any portion of the Work has been covered contrary to the request of the Owner or contrary to the requirements stated in the Contract, the CMAR shall, if requested by the Owner, uncover for observation and, if not in accordance with the Contract Documents, shall be replaced and recovered at the CMAR's expense without any adjustment to the Contract Time.
- b) If any portion of the Work has been covered which the Owner has not specifically requested to observe prior to being covered, the CMAR shall, if requested by the Owner, uncover for observation and, if unacceptable, shall be replaced and recovered at the CMAR's expense without any adjustment to the Contract Time. If the uncovered Work is in compliance with the requirements of the Contract, the cost to recover shall be paid by the Owner.

**Section 2.08 Responsibility for Permits and Fees**

Unless otherwise provided in the Contract Documents to be the responsibility of the Owner, the CMAR shall secure all the necessary Permits and pay the required license and inspection fees associated therewith, which are necessary for the proper execution and completion of the Work.

**Section 2.09 Responsibility for Record Documents**

The CMAR shall keep a marked-up, up-to-date set of the Progress Record Documents subject to the provisions of Section 01700 of the Technical Specifications. The Progress Record Documents shall depict the as-built conditions of the Work as they occur during the course of construction as an accurate record of the deviations between the Work as designed and the Work as installed.

**Section 2.10 Responsibility for Substitutions of Materials, Products or Services**

- a) **Criteria.** The CMAR may propose the substitution of any material, product or service in lieu of that required or specified by brand name or trade name under the Contract subject to the requirements set forth herein. Any material, product or service manufactured by a company other than the one specified, or is brand name, model number or generic species other than what is specified, will be considered a substitution.

Prior to proposing the substitution, the CMAR shall determine whether or not (i) the proposed material, product or service is, in fact, equal to that specified after considering the ease of operation, maintenance, repairs, appearance, longevity and any other pertinent factors and (ii) the substitution will result in a cost savings, reduced construction time or similar demonstrable benefit to the Owner. A substitution will not be permitted where the material or product is intended to match others in use, accommodate artistic design, specific function or economy of maintenance.

- b) **Procedure.** In accordance with the Baseline Project Schedule, the CMAR shall submit to the Owner a written request for the substitution accompanied by drawings, samples, test data, certificates and any other pertinent documentation which will permit the Owner to make a fair and equitable decision concerning the proposed substitution. If the CMAR fails to submit the written request within the specified time, the substitution will not be allowed. If the substitution is acceptable to the Owner, a written authorization will be provided to the CMAR. No substitution will be allowed which will result in an increase in the Contract Amount.
- c) **Burden of Proof.** The burden of proof in establishing the equality of the proposed substitution shall be upon the CMAR. Approval of a substitution shall not relieve the CMAR from responsibility for compliance with the other requirements of the Contract. The CMAR shall bear the expense for any changes in other parts of the Work caused by the substitution. The submission of a substitution incurs no obligation on the part of the Owner to accept or construe the proposed substitution to be an equal to that specified under the Contract. The Owner will be the sole judge of whether or not the substitution is equal in quality, utility and economy to that specified under the Contract. The Owner will have a reasonable amount of time to review each request for substitution.
- d) **Required Certificates.** The substituted material, product or service shall be supported, by proper certification from the governmental agencies having jurisdiction over its use in the Work.

**Section 2.11 Responsibility for the Delivery and Storage of Materials and Equipment**

The CMAR shall receive, unload, store in a secure place, and deliver from storage to the Work site all materials and equipment required for the performance of the Contract. The storage facilities and methods of storing shall meet with the Owner's approval. Any materials and equipment subject to degradation by exposure shall be stored in a suitable enclosure provided by the CMAR.

**Section 2.12 Responsibility for Emergencies**

When emergencies affecting or threatening the safety of any person or property occur, the CMAR shall immediately act with diligence to prevent injury to such person, or damage or loss to such property. If the CMAR should fail to act, the Owner may, but is not obligated to, act immediately to prevent injury to such person, or damage or loss to property, whichever may be endangered by the emergency by whatever means or method the Owner deems appropriate, including, but not limited to, the use of other contractors, the Owner's own forces, and the CMAR's on-site equipment and materials, in which case, the CMAR shall pay the Owner for any such expenses incurred as provided in Section 10.05 (Owner's Right to Carry out the Work).

**Section 2.13 Responsibility for Payment of Subcontractors and Other Parties**

The CMAR is responsible for paying each Subcontractor constructing any portion of the Work, and other parties providing labor, material or supplies in connection with the Work in a timely manner.

**Section 2.14 Responsibility for Schedule of Values**

- a) The CMAR, if so requested by the Owner, shall have provided to the Owner a schedule of values allocated to various portions of the Work. The schedule of values shall be formed and supported by such data and information, acceptable to the Owner.
- b) Each line item of the schedule of values shall contain no more than reasonable and attributable costs applicable to the line item. The CMAR shall warrant the schedule of values to be reliable and accurate, and documents used in the preparation thereof shall be available for review by the Owner. Each line item on the schedule of values shall contain all costs attributable to that item with the exception of the CMAR Fee and CMAR General Conditions, which shall be

separately listed as a single line item at the bottom of the schedule of values as a lump sum total for the Project and payable as a percentage of overall work complete.

### **Section 2.15 Responsibility for Site Inspection**

- a) The CMAR acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost, including but not limited to (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance.
- b) The CMAR also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Owner, as well as from the drawings and specifications made a part of this contract. Any failure of the CMAR to take the actions described and acknowledged in this Section will not relieve the CMAR from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Owner.
- c) The Owner assumes no responsibility for any understanding reached or representation made concerning conditions which can affect the Work by any of the CMAR's officers or agents before the execution of the Contract, unless that understanding or representation is expressly stated in the Contract.

## **SECTION 3. OWNER'S RIGHTS AND RESPONSIBILITIES**

### **Section 3.01 Owner's Designated Representative**

- a) The Owner shall appoint a Designated Representative with respect to the Contract. The Designated Representative shall have complete authority to transmit instructions, receive information, interpret and define the policies of the Owner and to make other decisions on the part of the Owner. Following the issuance of the Notice to Proceed, the Designated Representative may perform any review, communications, notices or other act required on the part of the Owner.
- b) The Designated Representative shall not have any authority to change or interpret the Contract or Contract Documents, whether orally or in writing. Any ambiguity between the parties that require interpretation of the Contract or Contract Documents shall be resolved by written submission of a RFI by the CMAR. Any request for a change to the Contract or Contract Documents shall be resolved by written submission of a Change Order request by the CMAR. The Contract or Contract Documents shall not be changed without written confirmation from the Owner.
- c) Communications from the Owner's Representative may be verbal or written. Any verbal instruction or directive by the Owner's Representative to the CMAR that changes either the Contract Amount or Contract Time or that changes either the Contract or the Contract Documents shall not be valid unless confirmed in writing and acknowledged and accepted by the Owner 1) within five working days or 2) when the work that is subject to the verbal directive commences, whichever is earlier. Absent written confirmation of the Owner's Representative's verbal instruction to the CMAR, the parties agree that there is a strong presumption that no such verbal directive was ever given.

### **Section 3.02 Right to Perform or Award Separate Contracts for Portions of the Work**

- a) **Coordination.** The Owner reserves the right to perform portions of the Work related to the Project with its own forces or to award a separate contract or contracts for portions of the Work under the same or similar conditions of the Contract. The Owner will provide for the coordination of the activities by its own forces and that of each separate contractor with the Work of the CMAR. The CMAR shall participate with the Owner and the other separate contractors in reviewing their construction schedules when so directed by the Owner.
- b) **Revisions to the Guaranteed Project Schedule.** The CMAR shall make the revisions to the Guaranteed Project Schedule deemed necessary after a joint review and mutual agreement. The Guaranteed Project Schedule as revised shall then constitute the schedule to be used by the CMAR. If the activities by the Owner or the other contractors are completed within the time reflected in the Guaranteed Project Schedule as revised or an extension is granted in the Contract Time, the CMAR shall be precluded from asserting any claim for delay or additional expenses resulting from the Owner exercising its rights granted herein.

- c) **Storage of Equipment and Materials.** The CMAR shall afford the Owner and separate contractors' reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the CMAR's construction and operations with theirs as required by the Contract.
- d) **Reporting of Separate CMAR Deficiencies.** If part of the Work depends on the proper execution of construction or operations by the Owner or a separate contractor, the CMAR shall, prior to proceeding with the Work and each portion thereof, promptly report to the Owner the apparent discrepancies or defects such other construction or operations that would render the Work unsuitable for proper execution by the CMAR. The CMAR's failure to report such discrepancy or defect shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction or operations is fit and proper for the CMAR to proceed with the Work, except as to defects not then reasonably discoverable.
- e) **Delays and Damages to Separate CMARs.** The CMAR shall defend, indemnify and hold the Owner harmless pursuant to the provisions of Section 9.01 (General Indemnity) of the General Conditions for each claim asserted by a separate contractor for delay, improperly timed activity, defective construction or damage to the work of the separate contractor which is caused by the CMAR. The CMAR agrees to make no claim of cost or damages against the Owner for any delay, improperly timed activity, defective construction or damage to the Work of the CMAR which is caused (i) by the CMAR, or (ii) by a separate contractor unless such contractor is under contract to the Owner, or to a general contractor of the Owner.

The Owner shall pay each claim of cost incurred by the CMAR arising from the delay, improperly timed activity, defective construction or damage to the Work caused by a separate contractor acting under the direction or control of the Owner, or under the direction and control of a general contractor of the Owner, provided such claim meet the requirements contained in Section 01200 (Price and Payment Procedures) of the Technical Specifications.

The failure of either party to pay the costs as required herein shall entitle the other party to file a claim pursuant to Section 12 (Disputes between the Parties) of the Contract.

- f) **Repair of Damages.** The CMAR shall promptly repair any damage caused by the CMAR to the work of a separate contractor or to any property of the Owner or other property owner if so requested and permitted by the injured party. Such repair shall be in lieu of the payment of monetary damages to the injured party.

### **Section 3.03 Right to Perform Additional Work Within or Near the Project Site**

- a) The Owner reserves the right at any time to contract with other contractors whose work may occur within or near the site of the Project. In such event, the CMAR agrees not to interfere with or hinder the progress of work by the other contractors, and the Owner agrees to require such contractors to coordinate their work with that of the CMAR. The CMAR agrees to cooperate and coordinate with such contractors as directed by the Owner.
- b) The CMAR shall arrange the Work and shall place and dispose of the materials being used so as not to interfere with the operations of other contractors within the limits of the same Project. The CMAR shall join the Work with that of the other contractors in an acceptable manner and shall perform it in proper sequence to that of the other contractors.

### **Section 3.04 Progress Meetings**

The Owner shall chair the progress meetings between the parties to the Contract that shall include a representative from each major subcontractor if so requested by the Owner. The CMAR shall take notes of the progress meeting and shall distribute copies to each party within five (5) days after completion of the meeting. The meeting notes shall summarize decisions made at the meeting and reflect the weekly job progress in comparison to the Baseline Project Schedule. The attendees are responsible for remembering their own required action and the conference notes shall serve only as a reminder and record of the required action.

### **Section 3.05 Right of Suspension**

The Owner may, without cause, order the CMAR in writing to suspend, delay or interrupt the Work, in whole or in part, for such period of time as determined by the Owner. An adjustment shall be made for the increase in the cost of performing the Contract but not to exceed 120 calendar days (excluding therefrom any profit to the CMAR Fee), on the increased cost of performance caused by the suspension, delay, or interruption. No adjustment shall be made to the extent that:

- i) The performance is, was or would have been so suspended, delayed or interrupted by another cause for which the CMAR is responsible; or

- ii) An equitable adjustment is made or denied under another provision of the Contract Documents, or
- iii) The CMAR could have mitigated the increase in cost to perform the Contract.

If the Work is suspended beyond the 120-calendar day period, the provision of 3.06 shall apply and the CMAR will recover from the Owner payment for Work executed, including reasonable negotiated overhead and profit, and costs incurred by reason of such termination.

### **Section 3.06 Right of Termination for Convenience**

- a) Prior to, or during the performance of the Work, the Owner reserves the right to terminate the Contract in whole or in part, for any reason whatsoever (including, but not necessarily limited to, funding limitations). Upon such an occurrence the Owner will immediately notify the design professional and the CMAR in writing specifying the effective termination date of the Contract.
- b) After receipt of the Notice of Termination, the CMAR shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due at the point in the Contract:
  - i) Stop all construction;
  - ii) Place no further orders for materials or services;
  - iii) Terminate all subcontracts;
  - iv) Cancel all material and equipment orders as applicable; and
  - v) Take whatever action is necessary to protect and preserve all property related to this Contract, which is in the possession of the CMAR.
- c) Within 180 days of the date of the Notice of Termination, the CMAR shall submit a final termination settlement proposal to the Owner based upon costs up to the date of termination, including reasonable profit as allowed by the Contract Documents on completed Work, and reasonable demobilization costs as allowed by the Contract Documents. If the CMAR fails to submit the proposal within the time allowed, the Owner may determine the amount due to the CMAR because of the termination and shall pay the determined amount to the CMAR.
- d) The CMAR may terminate the Contract if through no act or fault of the CMAR or CMAR Subcontractor, their agents or employees or any other persons or entities, performing portions of the Work under direct or indirect contract with the CMAR, limited to either of the following reasons:
  - i) Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be terminated;
  - ii) An act of government, such as a declaration of national emergency that requires all Work to be terminated.

### **Section 3.07 Right to Replace Subcontractor**

The Owner shall have the right to require that the CMAR replace any Subcontractor at any time and for any reason by requesting such change in writing in accordance with the provisions of NRS 338.

## **SECTION 4. CONTRACT COMMENCEMENT, PROGRESS AND COMPLETION**

### **Section 4.01 Notice to Proceed**

- a) After receipt of all required submittals, including insurance and bonds, the Owner will issue a Notice to Proceed. The CMAR shall not commence construction activities at the Work site prior to the date specified in the Notice to Proceed.
- b) If deemed appropriate, the Owner may issue a Material Notice to Proceed to the CMAR authorizing the ordering of supplies, materials, equipment or other items related to the Work prior to issuance of the Notice to Proceed.

### **Section 4.02 Baseline Project Schedule**

Within the time provided in Section 01330 of the Technical Specifications, the CMAR shall submit the Baseline Project Schedule for the Work, which shall contain the appropriate milestones by which the Owner can judge and determine the progress of the Work.

**Section 4.03 Progress of the Work**

- a) The CMAR shall provide sufficient labor, materials, facilities, and equipment and shall work such hours, including night shifts, overtime operations, Saturdays, Sundays and holidays, as may be necessary to insure the prosecution and completion of the Work or separable portions thereof, in accordance with the Baseline Project Schedule.
- b) If the progress of the Work falls behind or fails to proceed in accordance with the Baseline Project Schedule, or it becomes apparent to the Owner from the current schedule that the Work will not be substantially complete within the Contract Time (as adjusted by Owner approved Change Orders), in addition to the other requirements of the Contract and remedies available to the Owner, the CMAR agrees to take the following actions at no additional cost to the Owner to correct such tardiness:
- i) Increase manpower in such quantities and crafts as will substantially eliminate, in the judgment of the Owner, the backlog of Work;
  - ii) Increase the number of working hours per shift, shifts per working day, working days per week, the amount of equipment, or any combination of the foregoing, sufficient to substantially eliminate, in the judgment of the Owner, the backlog of Work; and,
  - iii) Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- c) The failure of the CMAR to comply with the requirements of this Section or to remedy the tardiness shall be grounds for a determination by the Owner that the CMAR is failing to diligently prosecute the Work, in which case the Owner may, after the notice of the breach has been provided to the CMAR pursuant to Section 10.01 (Definition of Breach) of the Contract, without prejudice to other remedies the Owner may have and regardless of whether the CMAR has taken or is taking corrective action, immediately correct the CMAR's failure at the CMAR's expense by exercising the right to perform and carry out the work as provided in Section 10.05 (Owner's Right to Carry Out the Work) including the use of the Owner's work forces, to award separate contracts, to supplement the CMAR's work forces, to prepare or have prepared schedules which shall be used to determine the provisions of the Contract to withhold actual and anticipated liquidated damages, and any other means the Owner deems appropriate.

**Section 4.04 Contract Time**

Time is of the essence in the performance and completion of this Contract. The CMAR shall commence the Work on the date set by the Owner in the Notice to Proceed, and shall achieve Substantial Completion of the Work within the Contract Time.

**Section 4.05 Payment Terms and Definitions****a) Cost of the Work (and related terms)**

- i) The Cost of the Work includes wages paid, but not bonuses paid, for labor in the direct employ of the CMAR in the performance of the Work, exclusive of the labor that is to be included in the General Conditions. Labor rates, including fringe benefits, shall be in conformance with the applicable Prevailing Wage Rates as published by the Nevada State Labor Commission for this Project. This includes labor and management of CMAR self-performed construction work.
- ii) The Cost of the Work includes employees benefits and taxes for employees including, but not limited to, unemployment compensation, social security, health, welfare, retirement, and other fringe benefits as required by law, labor agreements, or paid under the CMAR's standard personnel policy, insofar as such costs are actually paid to employees of the CMAR detailed in subsection above who are engaged in the Work for employees.
- iii) The Cost of the Work includes the cost of all materials, supplies, and equipment incorporated in the cost of the Work, including costs of certificates of inspection and testing, transportation, storage, and handling, excluding testing and inspections required to be paid for directly by Owner.
- iv) The Cost of the Work includes all payments made by the CMAR to the Subcontractors and suppliers for the cost of the Work performed under the Contract.
- v) The Cost of the Work includes all costs directly incurred in the performance of the Work or in connection with the Project, and not included in the CMAR's Fee, which are reasonably inferable from the Contract Documents as necessary to produce the intended results and not already included in the General Conditions, CMAR Fee or CMAR Contingency.

- vi) Sales, use, gross receipts or other taxes, tariffs or duties related to the cost of the Work for which the CMAR is liable and not already included in the General Conditions, CMAR Fee or CMAR Contingency.
- vii) The CMAR's Cost of the Work includes the cost (including transportation and maintenance) of all supplies, equipment, temporary facilities, and hand tools (not owned by workers) that are used or consumed in the performance of the Work.
- viii) The CMAR's Cost of the Work includes rental charges for all necessary machinery and equipment, exclusive of hand tools owned by workers, used for the Work, whether rented from the CMAR or others, including installation, repair and replacement, dismantling, removal, maintenance, transportation, and delivery costs at rates consistent with those prevailing in the area.
- ix) CMAR's Cost of the Work includes all temporary water, power, and fuel costs necessary for the Work.
- x) CMAR's Cost of the Work includes all cost for removal of all generated non-hazardous substances, debris, and waste materials.

b) CMAR's General Conditions (and related terms)

- i) The CMAR's General Conditions includes salaries of CMAR's management and administrative employees when stationed at the field office, in whatever capacity employed, excluding construction labor and management of CMAR self-performed construction work, employees engaged on the road expediting the production or transportation of material and equipment, and employees from the principal or branch office performing jobsite functions while located at the principal office; including, by way of example and not limitation, the CMAR's Project manager, Project engineer, Project coordinator, Project estimator, Project scheduler and Project superintendent.
- ii) The CMAR's General Conditions includes the cost of CMAR's management and administrative employees including, but not limited to, unemployment compensation, social security, health, welfare, retirement, and other fringe benefits as required by law, labor agreements, or paid under the CMAR's standard personnel policy, insofar as such costs are actually paid to employees of the CMAR detailed in subsection a above who are engaged in the Work for employees.
- iii) The CMAR's General Conditions includes sales, use, gross receipts, or other taxes, tariffs, or duties related to the Work for which the CMAR is liable, as they specifically relate to the items included in the General Conditions cost line item.
- iv) The CMAR's General Conditions includes all costs associated with establishing, equipping, operating, maintaining, and demobilizing the specified field office(s).
- v) The CMAR's General Conditions includes all costs for reproduction, photographs, fax transmissions, long distance telephone calls, data processing services, postage, express delivery charges and on-site telephone service at the CMAR's field office.
- vi) The CMAR's General Conditions include all costs related to management of the CMAR's safety program.
- vii) The CMAR's General Conditions include the cost of CMAR bonding as stipulated herein.
- viii) The CMAR's General Conditions include all required Permits, fees, licenses, and tests not paid by the Owner.
- ix) The CMAR's General Conditions include the CMAR's cost of insurance as stipulated in Section 8 herein.
- x) The CMAR's General Conditions shall not include transportation, travel, and hotel expenses for the CMAR's personnel incurred in connection with the Work unless specifically approved in writing by the Owner.

c) CMAR's Fee (and related terms)

- i) The CMAR's Fee includes salaries and other mandatory or customary compensation of the CMAR's employees at its principal and branch offices, except employees assigned to the Project at the principal office. Specifically excluded are CMAR's personnel paid under CMAR's General Conditions.
- ii) The CMAR's Fee includes general and administrative expenses of the CMAR's principal and branch offices other than the field office.

- iii) The CMAR's Fee includes the CMAR's capital expenses, including interest on the CMAR's capital employed for the Work.
  - iv) The CMAR's Fee includes the CMAR's profit.
  - v) The CMAR's Fee excludes CMAR General Conditions (and related items) as listed above.
- d) CMAR's Contingency (and related terms)
- i) The CMAR's Contingency may be used to fund the following:
    - 1) Increases in the Cost of the Work identified through the refinement, development and completion of the Contract Documents or procurement of the Work, including increases in subcontractor or supplier costs, after acceptance by the Owner of the GMP and execution of this Contract. Decreases in the Cost of the Work shall transfer to the CMAR Contingency.
    - 2) Increases in the Cost of the Work for concealed conditions that can be reasonably inferred from the construction documents and/or the Work.
    - 3) Rework by the CMAR that is not a result of the CMAR's or Subcontractor's negligence or lack of coordination or communication with the Consultant or trade Subcontractors.
    - 4) Increase in the cost of the General Conditions. Decreases in the cost of the General Conditions shall transfer to the CMAR Contingency.
    - 5) Any deductible incurred as a result of a Builder's Risk Insurance claim.
  - ii) The CMAR's Contingency shall not be used to fund the following:
    - 1) Increases in the Cost of the Work as a result of an omission or correction in the Contract Documents that should have been identified through a reasonable constructability check and coordination review of the construction documents by the CMAR during the discharge of the CMAR's pre-construction duties. Design omissions or corrections which the CMAR could have reasonably identified through a reasonable constructability check and coordination review will be resolved on a case-by-case basis.
    - 2) Increases in the Cost of the Work as a result of the CMAR's or subcontractor's negligence or lack of coordination or communication with the Consultant or trade Subcontractors.
  - iii) The Owner's Contingency shall be used to fund the following:
    - 1) Increase in the Cost of the Work as a result of errors and omissions of the Consultant that could not have been reasonably discovered by the CMAR through a reasonable constructability check and coordination review of the construction documents by the CMAR during the discharge of the CMAR's pre-construction duties.
    - 2) Increases in the Cost of the Work as a result of Building Code compliance or outside agency requirements identified through the refinement, development and completion of the Contract Documents after acceptance by the Owner of the GMP and execution of this Contract or during construction of the Work, including increases in Subcontractor or Supplier costs.
    - 3) Increases in the Cost of the Work due to an unforeseen condition that could not be reasonably foreseeable from the Contract Documents.
    - 4) Increases in the Cost of the Work due to an unavoidable event, including weather, that arises and that could not have been anticipated from the Contract Documents.
  - iv) For each use of the CMAR's Contingency, the CMAR shall:
    - 1) Notify the Owner in writing no later than fourteen (14) days after the event or first knowledge of the cause that results in a request to use the CMAR Contingency;
    - 2) Attempt to gain Owner approval of the use of the CMAR Contingency prior to the expenditure;
    - 3) Provide backup documentation as requested by the Owner to justify the use and amount of the CMAR Contingency request; and

- 4) Document the approval of the expenditure of the CMAR Contingency through the use of a form acceptable to the Owner.
- v) Reference Division 1 of the Technical Specifications for the allowable CMAR's Contingency mark-ups, including subcontractor mark-up, for overhead and profit.

#### Section 4.06 Progress Payments and Retainage

- a) **Schedule of Values.** Within fourteen (14) days after the issuance of the Notice to Proceed, the CMAR shall submit to the Owner and the Consultant a schedule of values of the various portions of the Work, aggregating to the total Contract Sum, divided to facilitate payments to Subcontractors, prepared in a form acceptable to the Owner, and supported by such data to substantiate its correctness as the Owner may require. This schedule, when approved by the Owner and the Consultant, shall be the basis for each progress payment application. The scheduled costs shall be itemized in accordance with the breakdown listed in the CMAR GMP proposal and according to the list of defined components included in Subsection b below.
- b) **Progress Bills and Payments.** The CMAR may submit a monthly progress bill requesting payment for the Work performed to-date after measuring the Work and estimating its value based upon the unit prices contained in the Contract or the approved schedule of values. The progress bill must be submitted and must be accompanied by photographs of the Work completed to date and other supporting documentation (such as material receipts and storage verifications). The quantities and value estimates must have the concurrence of the Owner. As permitted pursuant to Section 10.06 (Deduction from Progress Payments) of these General Conditions and NRS Chapter 338, the Owner may withhold from the progress payment an amount that is sufficient to protect the Owner for the CMAR's failure to comply with the requirements of the Contract or applicable building codes, laws or regulations.
- c) **Certified Payroll Reports.** The CMAR must submit certified payroll records each month as required by NRS Chapter 338. If the certified payroll records for the previous month have not been received, the Owner may withhold funds from the progress payment in accordance with NRS Chapter 338. The Owner requires the use of LCP Tracker software for the submission of certified payrolls by the CMAR and all of its Subcontractors.
- d) **Retainage.** From the progress payment to be made to the CMAR, the Owner shall deduct and retain an amount equal to five percent (5%) of the amount approved for payment through 50% completion of the work.
- e) **Payment for Stored Material.** The Owner may at its discretion pay the CMAR the cost of the material that is to be used in the performance of the Work provided the material complies with the requirements of the Contract and the following conditions are satisfied:
  - i) The CMAR stores the material in a manner acceptable to the Owner at the Work site or other site that is acceptable to the Owner in its sole discretion.
  - ii) The CMAR furnishes evidence of the quantity and quality of the stored material that is acceptable to the Owner in its sole discretion.
  - iii) The CMAR furnishes legal title (free of liens or encumbrances of any kind) for the stored material that is acceptable to the Owner in its sole discretion.
  - iv) The CMAR furnishes evidence the stored material is insured to its full replacement value against loss, damage, destruction, theft or disappearance thereof prior to use in the Work that is acceptable to the Owner in its sole discretion.

The transfer of title to, or the payment for, the stored material by the Owner shall in no way relieve the CMAR of responsibility for placing the material in accordance with the requirements of the Contract.

If payment is being sought for material not specifically purchased for the Work, but taken from the CMAR's stock, then in lieu of an invoice, the CMAR shall submit to the Owner a statement and accompanying affidavit certifying that the material was taken from the CMAR's stock and that the claimed material and transportation costs represent the actual costs to the CMAR with no other additional mark-ups.

The progress bill requesting payment for the stored material shall not exceed the Contract price for such material or the price for the Contract item comprising the material used by the CMAR.
- f) **Material Transfer if Subsequent Phase GMP Negotiations Are Terminated.** The CMAR understands and agrees:
  - i) If the Owner and/or CMAR terminate negotiations for a GMP for a subsequent phase of the Project, or the

Owner decides to solicit bids for the remaining phase or phases of the Project, any materials that were ordered by the CMAR for the subsequent phase or phases of the Project pursuant to Exhibit "J" shall be transferred to the City. No later than 14 calendar days after written notice from the Owner to CMAR, the CMAR shall transfer title, free and clear of all liens or encumbrances of any kind or any other interest of the CMAR or any third party, to all of the materials previously ordered and included in the contracted GMP. Additionally, the CMAR shall deliver said materials to a location identified by the Owner that is within the jurisdictional limits of the City of Las Vegas, on a mutually agreeable date and time. Transfer of title shall be complete at such time 1) title is transferred by written document to be delivered to the Owner; and 2) the material is delivered in a clean and sound manner to the Owner's identified location. The costs of delivery of said materials shall be at the sole cost and expense of the CMAR.

ii) If any materials are ordered but not yet in the CMAR's possession at the time the Owner and/or CMAR terminate negotiations for a GMP for a subsequent phase of the Project, or the Owner decides to solicit bids for the remaining phase or phases of the Project, the materials shall 1) be delivered by the supplier to the Owner at the location identified by the Owner pursuant to the paragraph above or 2) if delivered to the CMAR, the CMAR shall promptly, and no later than 14 days after receipt, deliver to the Owner at the location identified by the Owner pursuant to the paragraph above. In either instance, CMAR shall promptly transfer title of said materials by written document to be delivered to the Owner.

iii) Notwithstanding any in subparagraphs i) and ii) above, the CMAR shall remain responsible for all materials ordered under the terms of the contracted GMP until such time title to the materials is transferred to the Owner by written document and the CMAR delivers the accepted materials to the Owner. The materials may be inspected at time of delivery by an authorized representative of the Owner for compliance with the specifications, workmanship, appearance, proper functioning of all equipment and systems, and conformance to all other requirements of this Contract. In the event deficiencies are detected, the materials will be rejected to enable the CMAR to make the necessary repairs, adjustments or replacements. It shall be the responsibility of the CMAR to arrange for return and pay all costs for return of materials rejected pursuant to this Subsection.

iv) CMAR shall have no obligation to transfer title or deliver the materials to the Owner until such time materials are paid for in full by Owner.

## SECTION 5. COMPLETION OF PROJECT

### Section 5.01 Substantial Completion

- a) When the CMAR considers the Work or portion thereof has reached Substantial Completion, the CMAR shall so inform the Owner. The Owner shall schedule a walk-through to establish a punch list of items to be completed or corrected by the CMAR.
- b) If the Work or any designated portion thereof has reached Substantial Completion, and all applicable governmental authorities have granted final approval of the Work, the Owner will issue a Certificate of Substantial Completion establishing the date of Substantial Completion identifying responsibilities of the Owner and CMAR for security, maintenance, utilities, damage to the work and insurance, and fixing the time for the CMAR to finish the items on the punch list accompanying the Certificate. The Certificate of Substantial Completion shall be submitted to the Owner and CMAR for their written acceptance of responsibilities assigned to them in such Certificate.
- c) In the event the CMAR is unwilling to provide written acceptance of the Certificate of Substantial Completion, the Owner shall issue the Certificate without the CMAR's signature, and (i) the CMAR shall immediately comply with the provisions of the Certificate, and any dispute involving the CMAR's unwillingness to provide written acceptance shall be resolved in accordance with Section 12 (Disputes Between the Parties). In such event, the Owner may withhold Liquidated Damages based on the completion date shown on the issued Certificate of Substantial Completion until such time as the dispute is resolved between the parties.

### Section 5.02 Punch List

- a) The CMAR shall complete or correct the Work identified on the punch list within the time specified on the Certificate of Substantial Completion or as otherwise directed. If the CMAR fails to satisfactorily complete or correct the punch list items, such failure shall constitute a breach of this Contract and the Owner shall have the option to invoke any of the remedies provided for under Section 10.
- b) The time stated for completion of punch list items shall include final clean-up of the Work site.

**Section 5.03 Final Inspection and Final Acceptance of the Work**

When the CMAR considers the Work is complete, the CMAR shall so notify the Owner in writing. If, after inspection and testing, the Owner determines that the Work has been completed as required by the Contract and the Contract otherwise fully performed, the Owner shall inform the CMAR that application for final payment may be made. The Contract shall not be considered to be fully performed until the CMAR provides the Owner with the certificates, guaranties, releases, certified payroll records, affidavits, record documents and other documents required under the Contract. Final acceptance of the Work shall be confirmed by the making of final payment unless otherwise stipulated at the time such payment is made.

**Section 5.04 Final Payment**

- a) Provided the Contract has been fully performed pursuant to Section 5.03 (Final Inspection and Final Acceptance of the Work) of the Contract, the CMAR shall prepare and submit a final payment application for all Work performed under the Contract. The acceptance of final payment shall operate as a release to the Owner by the CMAR of all claims and liabilities for all things done or furnished in connection with the Work and for every act or omission, negligent or otherwise, of the Owner and others relating to or arising out of the Work.
- b) No payment, final or otherwise, shall operate to release the CMAR from any obligations under the Contract or the Sureties from any obligations under the Performance Bond, Labor and Material Payment Bond or the Guaranty Bond.

**Section 5.05 Non-Conforming Work Not Accepted**

Neither final acceptance, the making of final payment, nor the entire or partial occupancy of the completed Work by the Owner, shall constitute an acceptance of the Work, or any portion thereof, not completed in accordance with the requirements of the Contract.

**SECTION 6. LIQUIDATED AND DELAY DAMAGES****Section 6.01 Owner's Recovery of Liquidated Damages**

- a) The CMAR acknowledges that time is an essential element of this Contract and for that reason the Work needs to proceed and be prosecuted vigorously to completion. In the event that the Work is not completed within the Contract Time set forth in Section 5 (Commencement and Completion Deadline) of the Owner-CMAR Contract of the Contract, the CMAR further acknowledges that the Owner will suffer damages which are difficult to ascertain, such as, but not necessarily limited to, the cost associated with additional architectural, engineering, inspection, supervision and contract administration.
- b) Because it is difficult and impractical to fix the amount of actual damages which would be suffered by the Owner if the CMAR fails to meet the completion deadline, the parties have agreed that the amount of liquidated damages set forth in Section 6 of the Owner-CMAR Contract is a reasonable estimate of the damages to be suffered by the Owner.
- c) The CMAR agrees to pay the Owner Liquidated Damages for each day that the Work exceeds the completion deadline until the CMAR reaches Substantial Completion of the Work. The Liquidated Damages provided for therein pertain only to the failure to complete the Work by the completion deadline, and does not preclude recovering any increased costs incurred by the Owner in completing the Work. Liquidated Damages shall be in addition to any other remedies that may be available to the Owner. By executing the Owner-CMAR Contract, the CMAR agrees that the amount of liquidated damages set forth therein is fair and reasonable.
- d) If the Owner permits the CMAR to complete the Work, or any part thereof, after the completion deadline or any extensions thereto, such permission shall not be construed as a waiver on the part of the Owner of any of its rights or remedies under the Contract.
- e) The Owner's right to withhold Liquidated Damages pursuant to the provisions of this Section, or any other section of the Contract, is self-executing, and is not subject to the notice of claim and dispute resolution procedures set forth in Section 12 (Disputes Between the Parties) of the Contract. If the CMAR disagrees with the assessment or withholding of any Liquidated Damages, such disagreement shall be treated as a dispute between parties subject to the notice of claim and alternative dispute resolution procedures set forth in that Section.

**Section 6.02 Delay Damages**

- a) The CMAR shall not make any claim against the Owner for an increase in the Contract Amount, or for any damages, losses or additional expenses which the CMAR may suffer as a result of any delay in the completion of the Work (regardless of the circumstances giving rise to the delay), with the exception of the following:

- i) Delays so unreasonable in length as to amount to an abandonment of the Project,
  - ii) Delays caused by fraud, misrepresentation, concealment or other bad faith by the Owner,
  - iii) Delays caused by active interference by the Owner, or
  - iv) Delays caused by a decision by the Owner to significantly add to the scope or duration of the public work.
- b) If any of the exceptions set forth in (i) through (iv) above are determined by the Owner to be applicable, the Owner may grant a time extension commensurate with the delay, increase the Contract Amount and/or consider for payment a claim for damages, losses or additional expenses resulting from any delay in the completion of the Work provided such claim meets the requirements set forth in Section 12 (Disputes Between the Parties) of this Contract. The Owner shall determine the validity of the claim and the amount to be paid, and such consideration or payment shall not invalidate, limit or otherwise waive the prohibition provisions of this Section with respect to any future delay claims of the CMAR.
- c) Without limiting the circumstances that may cause delays for which the CMAR is assuming the risk for CMAR's delay damages, the following possible delay circumstances for which a time extension may be considered within the contemplation of the parties:
- i) Unknown or uncertain conditions including, but not necessarily limited to, the discovery of caliche, ground water and all other subsurface conditions,
  - ii) Weather conditions (including, but not limited to, precipitation, flood, mud slides, sink holes, ice and snow resulting from precipitation, wind, temperature or humidity) and the resultant effects thereof regardless of the nature, duration, severity or abnormality of such weather condition,
  - iii) Unmarked utilities or utility interferences,
  - iv) Events of war, labor disputes, transportation delays, freight embargos, earthquakes, floods, epidemics, terrorist threats or acts, workplace violence, theft, vandalism damage to the Work (including fire and explosion), disruptions in labor or materials resulting from a health crisis regardless of whether epidemic, pandemic or isolated to areas from which such labor and materials are supplied; acts of God and all other events, acts or omissions resulting in the unavailability of labor, materials, equipment or utilities,
  - v) Acts or omissions of the Owner and other governmental authorities acting in their role as code and regulation enforcement regulators,
  - vi) Acts or omissions of contractors, subcontractors, suppliers and material manufacturers involved in the Work,
  - vii) Acts, omissions and coordination of other contractors regardless of the event location or contractual relationship between the parties, unless such contractors are under the direction or control of the Owner, or under the direction or control of a general contractor of the Owner, and
  - viii) Discovery of hazardous substances or substances suspected of being hazardous,
- d) This Section shall apply to any claim described as a "disruption," "acceleration," "suspension," "schedule change," "impact to the progress of the Work" or some other term avoiding use of the term "delay."
- e) No CMAR claim for delay and impact damages shall be computed or determined on the basis of the Eichleay formula or a related formula to allocate unabsorbed overhead costs or expenses. Any claim and impact damages shall be computed or determined on the basis of actual damages incurred by the CMAR.

## **SECTION 7. BONDING REQUIREMENTS**

### **Section 7.01 Required Bonds**

The CMAR shall purchase and maintain throughout the term of this Contract, the following bonds:

- i) Performance Bond insuring performance of all of the obligations of the Contactor as required by the Contract in the amount of 100% of the Cost of the Work (excluding General Conditions), as indicated on page 1 of the contract.
- ii) Labor and Material Payment Bond insuring the payment of all of the Subcontractors and material suppliers of the CMAR in the amount of 100% of the Cost of the Work (excluding General Conditions), as indicated on page 1 of the contract .

- iii) Guaranty Bond insuring against defects or deficiencies in the workmanship of, and materials used in, the Work in the amount of 100% of the Cost of the Work (excluding General Conditions), as indicated on page 1 of the contract. The Guaranty Bond shall take effect upon Substantial Completion of the Work and shall remain in effect for a period of one year thereafter or for longer period if so provided in the Specifications.

### **Section 7.02 Acceptable Surety**

- a) The bonds must be issued by a surety who is listed in Circular 570 (current edition) issued by the Department of Treasury, Fiscal Services as company holding a certificate of authority as an acceptable surety or reinsuring company of federal projects.
- b) The Surety must be licensed to do business in the State of Nevada. Bonds issued by individuals as surety are not acceptable to the Owner. The CMAR shall require the agent who executes the bond on behalf of the Surety to attach to the bond a correct copy of the power of attorney authorizing the agent to execute the bond.

### **Section 7.03 Failure to Maintain Bonds**

If, for any reason, the bonds are not maintained in effect as required herein, the surety files for protection under the federal bankruptcy laws or similar state laws or the surety rating decreases from that required under Section 7.02 (Acceptable Surety) of the Contract, the Owner may require the CMAR to procure bonds from another surety to be substituted in lieu of the bonds originally provided to the Owner, and the failure to procure the substitute bonds shall constitute a breach of the Contract entitling the Owner to any of the remedies set forth in Section 10 (Breach of Contract and Remedies) of the Contract.

## **SECTION 8. INSURANCE REQUIREMENTS**

### **Section 8.01 Contractor/Owner Provided Builder's Risk Insurance**

The Owner shall provide Builder's Risk Insurance insuring against all risks of loss (including fire, testing, vandalism, malicious mischief, collapse and water damage) for 100% of the replacement value of the completed portion of the Work including delay damages or damage to materials stored on or outside the Project, or in transit thereto.

Scope of Coverage:	Project Specific
Type of Coverage:	Occurrence Basis
Amount of Deductible	\$10,000*
Amount of Coverage:	Contract Amount
Policy Period:	Effective until Final Completion of the Project
Named Insured:	City of Las Vegas

\* The deductible may be paid from the CMAR's Contingency. However, no reimbursement will occur if the claim is a result of the CMAR's or its Subcontractor's negligence.

### **Section 8.02 CMAR Provided Insurance - General**

- a) The CMAR shall purchase and continuously maintain in full force and effect for the policy periods specified below the insurance policies specified in this Section. The insurance required hereunder shall not be interpreted to relieve the CMAR of any obligations under the Contract. The CMAR shall remain fully liable for all deductibles, including Builder's Risk Insurance provided by the Owner and amounts in excess of the coverage actually realized, except Builder's Risk.
- b) During construction of the project by the CMAR, the CMAR shall, for the purposes of protecting and defending Owner, require CMAR's Subcontractors providing labor and/or materials with regard to such work to either (a) maintain throughout the course of work the insurance coverages and limits required under Section 8 through participation as named insureds under any "contractor controlled" or "wrap up" insurance program maintained by the CMAR for the Project, or (b) to obtain and keep in full force and effect at all times throughout the course of work the following insurance, the cost and expense of which shall be borne by such the CMAR and/or Subcontractor. All insurance and requirements in any form or manner is subject to approval and acceptance by the Owner.
- c) If the CMAR utilizes umbrella or excess policies to meet limit requirements, these policies must "follow form" and afford no less coverage than the primary policy. If utilized, the CMAR shall waive all rights of recovery, and its insurers also waive all rights of subrogation of damages against the Owner for damages covered by Umbrella or Excess Liability obtained by the CMAR as required by the Owner.

- d) **Commercial General Liability Insurance.** The CMAR shall provide and maintain Commercial General Liability Insurance (broad form coverage) insuring against claims for bodily injury, property damage, personal injury and advertising injury that shall be no less comprehensive and no more restrictive than the coverage provided by Insurance Services Office (ISO) form for Commercial General (CG 00-01-10-01). By its terms or appropriate endorsements such insurance shall include the following coverage, to wit: Bodily Injury, Property Damage, Fire Legal Liability (not less than the replacement value of the portion of the premises occupied), Personal Injury, Blanket Contractual, Independent Contractors, Premises Operations, Products and Completed Operations (for a minimum of two (2) years following Final Completion of the Project). The policy cannot be endorsed to exclude the perils of explosion (x), collapse (c) and underground (u) exposures without the approval of the Owner.

If Commercial General Liability Insurance or other form with a general aggregate limit and products and completed operations aggregate limit is used, then the aggregate limits shall apply separately to the Project, or the CMAR may obtain separate insurance to provide the required limit which shall not be subject to depletion because of claims arising out of any other project or activity of the CMAR. Any such excess insurance shall be at least as broad as the CMAR's primary insurance.

Scope of Coverage: Non-Project Specific  
 Type of Coverage: Occurrence Basis  
 Amount of Coverage: \$1,000,000 per occurrence  
 \$2,000,000 aggregate  
 Policy Period: Annual Policy. Effective for 2 years following Final Completion of the Project  
 Name Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

- e) **Automobile Liability Insurance.** The CMAR shall provide Commercial Automobile Liability Insurance insuring against claims for bodily injury and property damage and covering the ownership, maintenance or use of all owned/leased, non-owned and hired vehicles used in the performance of the Work, both on and off the Project Site, including loading and unloading. The coverage shall be primary and non-contributory and shall be provided by Insurance Services Office form for Commercial Auto Coverage (CA-00-01-10-01) or equivalent.

Scope of Coverage: Non-Project Specific  
 Type of Coverage: Occurrence Basis  
 Amount of Coverage: \$1,000,000 Combined Single Limit  
 Policy Period: Annual Policy. Effective for the duration of this Contract  
 Name Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

- f) **Excess Liability Insurance.** A policy of excess liability coverage with annual limits of not less than \$2,000,000 on a following form basis excess of the insurance coverage for General Liability and Automobile Liability. The insurance required under this Section may be reached by a combination of following form excess liability and/or umbrella liability policies which coverage shall be layered, with coverage dropping down and being provided by each subsequent layer, as coverage under prior layers is exhausted; provided that such layered coverage shall not result in any coverage gaps, and further provided that such coverage, in combination, meets all of the other applicable requirements set for General Liability and Automobile Liability and complies with all other applicable provisions contained in these Insurance Requirements,

- g) **Workers' Compensation.** The CMAR shall provide Worker's Compensation Insurance sufficient to meet its statutory obligation under NRS Chapter 616 to provide benefits for employees with claims of bodily injury or occupational disease (including resulting death). The policy required herein shall be primary and non-contributory in its coverage.

Scope of Coverage: Non-Project Specific  
 Type of Coverage: Occurrence Basis

Amount of Coverage: Statutory  
 Policy Period: Annual Policy. Effective for the duration of this Contract  
 Name Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

- h) **Employer's Liability Insurance.** The CMAR shall provide Employer Liability Insurance covering its legal obligation to pay damages because of bodily injury or occupational disease (including resulting death) sustained by an employee. The policy required herein shall be primary and non-contributory in its coverage.

Scope of Coverage: Non-Project Specific  
 Type of Coverage: Occurrence Basis  
 Amount of Coverage: \$1,000,000 bodily injury by accident  
 \$1,000,000 bodily injury by disease  
 \$1,000,000 policy limited  
 Policy Period: Annual Policy. Effective for the duration of this Contract  
 Name Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

- i) **CMAR Environmental Impairment Liability Insurance. (This Section  IS  IS NOT Applicable to this Contract)** The CMAR shall provide and maintain Environmental Liability Insurance that covers liability against claims for bodily injury (including wrongful death) and property resulting from the presence or removal of asbestos on the Project Site.

Scope of Coverage: Project Specific  
 Type of Coverage: Occurrence Basis  
 Amount of Coverage: \$1,000,000 per occurrence  
 \$2,000,000 aggregate  
 Policy Period: Annual Policy Effective until Final Completion of the Project  
 Named Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

A separate certificate of insurance evidencing the coverage required herein shall be provided to the Owner.

- j) **Installation Floater Insurance. (This Section  IS  IS NOT Applicable to this Contract)** The CMAR shall provide and maintain Installation Floater Insurance insuring against damage or destruction of the Owner-provided materials or equipment in transit to, or stored on or off the Project Site, and during handling and installation by the CMAR for use in the Work. Installation Floater Insurance shall also insure against damage or destruction to existing infrastructure and equipment due to the CMAR's actions associated with the installation of said materials or equipment.

Scope of Coverage: Project Specific  
 Type of Coverage: Occurrence basis  
 Amount of Coverage: TBD  
 Policy Period: Effective until Final Completion of the Project  
 Named Insured: CMAR  
 Additional Insured Parties: City of Las Vegas (its officers, employees and agents)

### Section 8.03 Acceptable Insurance Company

The insurance company providing any of the insurance coverage required herein shall have a Best's Key rating of A- VII or higher, (i.e., A- VII, A- VIII, A- IX, A- X, etc.) and shall be subject to approval by the Owner. Each insurance company's rating as shown in the latest Best's Key Rating Guide shall be fully disclosed and entered on the required certificate of insurance.

**Section 8.04 Premiums, Deductibles and Self-Insured Retentions**

The CMAR shall be responsible for payment of premiums for all of the insurance coverages required under this Section 8. The CMAR further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the CMAR is responsible hereunder, the CMAR shall be solely responsible for all deductibles and self-insured retentions. Any deductibles or self-insured retentions over Fifty Thousand Dollars (\$50,000) in the CMAR insurance must be declared and approved by Owner.

Contractors requesting increased deductibles or self-insured retentions must provide the Owner a written request stating the desired amounts along with recent audited financial statements for review. The Owner will review the request and determine if the requested deductible or self-insured retentions are acceptable. In the event the request for increased deductibles or self-insured retentions is denied, the successful Contractor is obligated to provide the deductibles or self-insured retentions established in the bid documents at no additional expense to the Owner.

**Section 8.05 Certificates of Insurance**

The CMAR must provide compliant certificates of insurance and required endorsements to the Owner or its designated certificate tracking service immediately upon request, as evidence that all insurance requirements have been met for each required policy to be provided by the CMAR under this Section 8. The required certificates must be signed by the authorized representative of the insurance company shown on the certificate with proof that such person is an authorized representative thereof, and is authorized to bind the named underwriter(s) and their company to the coverage, limits and termination provisions shown thereon.

A certified, true and exact copy of each of the project specific insurance policies (including renewal policies) required under this Section 8 shall be provided to the Owner or the designated certificate tracking service if so requested.

**Section 8.06 Renewal Policies**

The CMAR shall promptly deliver a certificate of insurance with respect to each renewal policy, as necessary to demonstrate the maintenance of the required insurance coverage for the terms specified herein. Such certificate shall be delivered not less than 30 days prior to the expiration date of any policy and bear a notation evidencing payment of the premium thereof.

**Section 8.07 Cancellation and Modification of Insurance Coverages**

Each insurance policy supplied by the CMAR must be endorsed to provide that the coverage shall not be suspended, voided, canceled or reduced in coverage or in limits except after ten (10) days written notice in the case of non-payment of premiums, or thirty (30) days written notice in all other cases, has been given to the Owner and such notice is by certified mail, return receipt requested. This notice requirement does not waive the Insurance Requirements contained herein.

**Section 8.08 No Recourse**

There shall be no recourse against Owner for the payment of premiums or other amounts with respect to the insurance required from the CMAR under this Section 8.

**Section 8.09 Endorsements and Waivers**

All insurance policies required hereunder shall contain or be endorsed to contain the following provisions:

- i) For claims covered by the insurance specified herein, said insurance coverage shall be primary insurance with respect to the insured, additional insured parties, and their respective members, directors, officers, employees and agents and shall specify that coverage continues notwithstanding the fact that the CMAR has left the Project site. Any insurance or self-insurance beyond that specified in this Contract that is maintained by an insured, additional insured, or their members, directors, officers, employees and agents shall be in excess of such insurance and shall not contribute with it.
- ii) Any failure on the part of a named insured to comply with reporting provisions or other conditions of the policies, any breach of warranty, any action or inaction of a named insured or others, any foreclosure relating to the Project or any change in ownership of all or any portion of the Project shall not affect coverage provided to the other insured or additional insured parties or their respective members, directors, officers, employees and agents.
- iii) The insurance shall apply separately to each insured and additional insured party against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

**Section 8.10 Failure to Provide or Maintain Insurance Coverages**

The CMAR's failure to provide or maintain any of the insurance coverage required herein shall constitute a breach of the Contract. In addition to the remedies that the Owner may have pursuant to Section 10 (Breach of Contract and Remedies) of the General Conditions, the Owner may take whatever action is necessary to maintain the current policies in effect (including the payment of any premiums that may be due and owing by the CMAR) or procure substitute insurance. The CMAR is responsible for any costs incurred by the Owner in maintaining the current insurance coverage in effect, or providing substitute insurance, and such costs may be deducted from any sums due and owing the CMAR.

**SECTION 9. INDEMNITY****Section 9.01 General Indemnity**

- a) The CMAR shall protect, indemnify and hold the Owner, its officers, employees, agents and consultants (collectively the "Indemnitees") harmless from any and all claims, liabilities, damages, losses, suits, actions, decrees, and judgments (including attorney fees, court costs) or other expenses of any and every kind or character (collectively the "Claims"), which may be recovered from or sought against the Indemnitees as a result of, by reason of, or as a consequence of, any act or omission, negligent or otherwise, on the part of the CMAR, its officers, employees, agents, Subcontractors or suppliers (i) in the manufacturing or supplying (including transportation) of any materials, supplies or other products used in the Work, or (ii) in the performance of the terms, conditions and covenants of the Contract, regardless of whether the Claims were caused in part by the Indemnitees. The Owner may retain for its protection any money due and owing the CMAR under this Contract. In the event no money is due and owing, the surety, if required, of the CMAR, may be held until all of the Claims have been settled and suitable evidence to that effect furnished to the Owner.
- b) It is expressly agreed that the CMAR shall defend the Indemnitees against the Claims and in the event that the CMAR fails to do so, the Owner shall have the right, but not the obligation, to defend the same and to charge all direct and incidental costs, including attorney's fees and court costs to the CMAR. Nothing in the aforementioned Section 9.01 shall require the CMAR to indemnify the Indemnitees for the claims or damages arising out of the sole negligence of the Indemnitees.

**Section 9.02 Patent Indemnity**

- a) The CMAR shall protect, defend and hold the Owner, its officers, employees, agents and consultants (collectively the "Patent Indemnitees") harmless from and against all claims, losses, costs, damages, and expenses, including attorney fees, court costs or other expenses (collectively the "Patent Claims"), incurred by the Patent Indemnitees, or any of them, respectively, as a result of or in connection with any claims or actions based upon infringement or alleged infringement of any patent and arising out of the use of the equipment or materials furnished under the Contract by the CMAR, or out of the processes or actions employed by, or on behalf of, the CMAR in connection with the performance of the Contract. The CMAR shall, at its sole expense, promptly defend against any such claim or action unless directed otherwise by the Patent Indemnitees; provided that the Patent Indemnitees shall have notified the CMAR upon becoming aware of such claims or actions, and provided further that the CMAR's aforementioned obligations shall not apply to equipment, materials or processes furnished or specified by the Patent Indemnitees.
- b) In order to avoid such claims or actions, the CMAR shall have the right, at its expense, to substitute non-infringing equipment, materials or processes, or to modify such infringing equipment, materials and processes so they become non-infringing, or to obtain the necessary licenses authorizing the use of the infringing equipment, material or processes, provided that such substituted and modified equipment, materials and processes shall meet the requirements of this Contract.

**SECTION 10. BREACH OF CONTRACT AND REMEDIES****Section 10.01 Definition of Breach**

If, during the existence of the Contract, the CMAR:

- i) Fails to properly pay any Subcontractor or other parties for labor, materials or supplies as required by Section 2.13 (Responsibility for Payment of Subcontractors and Other Parties) of the Contract;
- ii) Fails to begin the Work within the time specified in the Notice to Proceed as required by Section 4.01 (Notice to Proceed) of the Contract;
- iii) Fails to diligently prosecute the Work as required by Section 4.02 (Guaranteed Project Schedule) or Section 4.03 (Progress of the Work) of the Contract;

- iv) Fails to provide sufficient workmen, materials or equipment to assure the prompt completion of the Work as required by Section 4.03 (Progress of Work) of the Contract;
- v) Fails to complete the Work within the Contract Time as required by Section 4.04 (Contract Time) of the Contract;
- vi) Fails to complete the punch list within the time specified in the Certificate of Substantial Completion as required by Section 5.02 (Punch List) of the Contract;
- vii) Fails to maintain the bonds, industrial insurance coverage for his employees, general liability insurance or any of the other policies of insurance as required by Sections 7.01 (Required Bonds) and 8.01 (Required Insurance) of the Contract;
- viii) Fails to pay third party claims as required by Section 9.01 (General Indemnity) of the Contract;
- ix) Fails to maintain licensure by the Nevada State Contractors Board as required by Section 11.01 (General Warranty) of the Contract;
- x) Fails to promptly remedy the Work not in conformance with the Contract as required by Section 11.03 (Warranty Work Conforms with Requirements of the Contract);
- xi) Fails to observe laws, ordinances, rules or regulations pertaining to the Project as required by Section 13.01 (General) of the Contract;
- xii) Fails to investigate, or cooperate in the investigation of, complaints concerning the payment of prevailing wage rates requested by the Owner or the State Labor Commissioner's Office as required by Section 13.02 (Compliance with Labor Laws) of the Contract;
- xiii) Fails to maintain solvency, allows a judgment to stand against the CMAR for a period of five (5) days, files a petition with the United States Bankruptcy Court, is adjudged insolvent or bankrupt, makes a general assignment for the benefit of creditors, or commits an act of bankruptcy or insolvency; or
- xiv) Fails to remedy any other material breach of the provisions of the Contract;

then the occurrence of any of the above shall constitute a breach of the Contract which if unremedied may constitute an Event of Default as described in Section 10.02 (Event of Default).

#### **Section 10.02 Event of Default**

- a) The CMAR and the Surety under the Performance Bond shall be entitled to seven (7) days' notice of each breach described in Section 10.01 (Definition of Breach) of the Contract and given the opportunity within such time to cure the breach, provided, however, such breach is capable of a cure. If such breach is capable of a cure but by its nature cannot be cured within the seven day period, the CMAR or Surety may be allowed such additional time as may be reasonably necessary to cure the breach provided the cure is commenced within the seven day period and is diligently pursued to completion.
- b) If any breach is not subject to cure, or is not cured as provided herein, the Owner may declare that an "Event of Default" has occurred and the Owner may, in addition to any other remedies available in law or equity, invoke any of the remedies provided for under this Section 10 (Breach of Contract and Remedies) of the Contract.

#### **Section 10.03 Damages**

Except for those breaches which are subject to Liquidated Damages set forth in Section 6.01 (Owner's Recovery of Liquidated Damages), if the CMAR fails to cure any Event of Default under this Contract within the time provided in Section 10.02 (Event of Default), the Owner shall be entitled to damages resulting therefrom.

#### **Section 10.04 Termination for Cause**

- a) Upon the occurrence of an Event of Default, the Owner may terminate the Contract which shall take effect immediately upon service of the notice on the CMAR and the Surety under the Performance Bond unless a different effective date is specified therein. In the event of such termination, the Surety shall have the right to take over and perform the Contract.
- b) If the Surety does not commence performance of the Contract within ten (10) days of receipt of the notice, the Owner may do any and all of the following:

- i) Take possession of the Project Site and the materials, equipment, tools, and construction equipment and machinery thereon owned by the CMAR;
  - ii) Accept the assignment of the CMAR's subcontracts pursuant to this Contract (Contingent assignment of subcontracts to Owner if Contract is terminated); and
  - iii) Finish the Work by whatever method deemed expedient by the Owner.
- c) The CMAR shall not be entitled to any further payment under the Contract until the Work is completed and accepted by the Owner. If the unpaid balance of the Contract Amount exceeds the cost of completing the Work, including compensation for any damages or expenses incurred by the Owner through the default of the CMAR, the excess shall be paid to the CMAR. If, however, the damages and expenses exceed the unpaid balance of the Contract Amount, the CMAR and the Surety under the Performance Bond shall pay the difference to the Owner.

#### **Section 10.05 Owner's Right to Perform the Work**

- a) If the CMAR fails to perform or proceed with the Work, or any part thereof, as required by the Contract, and fails within the seven (7) day notice required pursuant to Section 10.02 (Event of Default) of the Contract to remedy the breach, or to commence and continue correction of such breach with promptness and due diligence toward completion, the Owner may, without prejudice to any other right or remedy available to the Owner, and without terminating the Contract and relieving the CMAR from its obligations under the Contract, proceed to correct the breach, or applicable portion thereof, by any means or methods deemed appropriate (including use of the Owner's personnel).
- b) If the Owner discovers during the course of the corrective action that the breach is greater or otherwise different from, but nevertheless related to, the breach described in the seven-day notice, then the greater or different breach shall be deemed to have been included in the original seven-day notice and the Owner may proceed with the corrective action without having to provide any additional notice to the CMAR.
- c) If, after expiration of the seven-day notice period required pursuant to Section 10.02 (Event of Default) of the Contract, the CMAR proceeds to correct the breach and the Owner has already incurred certain expenses (such as, but not necessarily limited to, preparation of cost estimates or remedial plans and drawings, placement of material orders, demolition costs, rental costs, storage costs, trash removal expenses, utility expenses, scheduled commitments from contractors which cannot be canceled without the Owner incurring costs to the contractor, transportation costs of personnel or materials, and incurred cost of hiring technical personnel whether licensed or not) as part of an effort to remedy the breach, then the CMAR shall pay the Owner for such incurred expenses as provided herein.
- d) If, after issuance of the seven day notice of the breach required pursuant to Section 10.02 (Event of Default) of the Contract, the Owner decides not to take any action to correct the breach or fails in the effort to correct the breach, the CMAR remains responsible for the breach and any expenses incurred in any failed effort to correct the breach.
- e) In the event of a correction and expense as provided herein, the Contract Amount shall be reduced by the amount of the incurred expenses which amount the Owner shall be entitled to deduct from any payments then or thereafter due the CMAR (including the direct and indirect costs of using the Owner's personnel). If payments then or thereafter due the CMAR are not sufficient to cover the incurred expenses, the CMAR shall pay the difference to the Owner.

#### **Section 10.06 Deduction From Progress Payments**

- a) For each and every breach set forth in Section 10.01 (Definition of Breach) of the Contract, the Owner may decline to certify, in whole or in part, any pending application for payment which, in the opinion of the Owner, may be necessary to protect the Owner from the damages and expenses which are expected to be incurred, or which have been incurred, as a result of the breach. Based upon the opinion of the Owner, the Owner may withhold from any requested progress payment such sum as may be necessary to protect the Owner from such damages and expenses including, but not necessarily limited to, the Liquidated Damages permitted pursuant to Section 6.01 (Owner's Recovery of Liquidated Damages) of the Contract which the Owner anticipates will occur as a result in the delay in the Completion of the Project.
- b) If an agreement can be reached between the Owner and the CMAR concerning the request for payment, the CMAR may submit a revised application for certification. The Owner shall have the right to deny in whole or in part, or to require an adjustment to, any pending application if, as a result of new evidence or observations subsequent to the issuance of a previous certification, the Owner has determined that the amount paid exceeds the percentage of completion of the

Work, the Work cannot be completed for the unpaid balance of the Contract or any other such certification was improperly issued.

- c) If the CMAR remedies the failure for which payment has been withheld, and the Owner verifies such correction, then the withheld money shall be included with the payment of the next application.

#### **Section 10.07 Rights and Remedies are Cumulative**

Except as otherwise expressly stated in the Contract, the rights and remedies of the parties are cumulative, and the exercise by any party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

### **SECTION 11. REPRESENTATIONS AND WARRANTIES**

#### **Section 11.01 General Representations and Warranties**

The CMAR hereby represents and warrants that it (i) is familiar with requirements of the Contract; (ii) has investigated the site and is knowledgeable concerning the local conditions that may affect the performance of the Work; (iii) is satisfied that the Work can be performed and completed as required in the Contract; (iv) accepts all of the risks directly or indirectly connected with the performance of the Contract; (v) has not been influenced by any statement or promise other than those contained in the Contract Documents; (vi) is experienced and competent to perform the Contract; (vii) is familiar with all general and special laws, ordinances and regulations that may affect the Work, its performance, or those persons employed therein; (viii) is familiar with tax and labor regulations and with rates of pay that will affect the Work, and (ix) is properly licensed and will remain properly licensed by the CMARs Board of the State of Nevada in order to perform the Contract.

#### **Section 11.02 Warranty of Merchantability and Fitness for Particular Purpose**

The CMAR warrants that the equipment and materials used or provided as part of the Contract are of merchantable quality and fit for their particular purpose.

#### **Section 11.03 Warranty Work Conforms with Requirements of the Contract**

- a) In addition to other warranties and longer time periods which may be provided in the Contract, and as a minimum, the CMAR warrants the Work performed under the Contract is in conformance with the requirements of the Contract, and that the Work is free of defects and deficiencies in design, materials and workmanship (unless furnished by the Owner) for a period of twelve (12) months from the date of the Certificate of Substantial Completion (or 12 months from the completion date of any portions of the Work first performed after Substantial Completion), regardless of whether the same were furnished or performed by the CMAR or by any of its Subcontractors of any tier. Upon receipt of written notice from the Owner of any non-conformance to the Contract during the applicable warranty period, the CMAR shall promptly correct the affected non-conformance at a time acceptable to the Owner.
- b) The CMAR shall perform such tests as the Owner may require verifying that the Work is in compliance with the Contract. If such Work is not in accordance with the Contract, the costs of the correcting and testing, including the cost of removal necessary to gain access thereto and other related incidental costs, shall be borne by the CMAR. If such Work is found to be in accordance with the Contract, the costs of uncovering, replacement, and testing shall be charged to the Owner. The CMAR warrants any corrected Work to be in conformance with the Contract for a period of twelve (12) months from the date of acceptance thereof. If the CMAR fails to promptly make the necessary corrections and tests, the Owner may perform or cause to be performed the same at the CMAR's expense. The CMAR and its Surety shall be liable for the satisfaction and full performance of the warranties set forth in this Section.
- c) Unless otherwise provided elsewhere in the Contract, the materials and equipment incorporated into the Work shall be new and of the most suitable grade of their respective kinds for their intended use, and all workmanship shall be in accordance with construction practices acceptable to the Owner.
- d) Nothing contained in this Section shall be construed to establish a period of limitation with respect to the CMAR's obligations under the Contract other than specifically to correct the Work then known by the Owner to be in non-conformance with the Contract, including, but not limited to, defects and deficiencies in design, materials and workmanship (unless furnished by the Owner).

#### **Section 11.04 Warranty Exclusions Prohibited**

- a) The Owner will not accept any warranty clause from the CMAR, Subcontractor or manufacturer that states:

- i) That the implied warranties of Merchantability or Fitness for a Particular Purpose are excluded from the Contract;
  - ii) That the warranty clause is in lieu of all other warranties that are either expressed or implied.
- b) In addition to the above restrictions, the warranty requirements of the Contract shall exist in a direct extension from the manufacturer to the Owner as well as from the CMAR to the Owner if the manufactured product is sold directly to the CMAR.

## **SECTION 12. DISPUTES BETWEEN THE PARTIES**

### **Section 12.01 In General**

Any claim, dispute or other controversy that may arise between the Owner and CMAR concerning any provision of this Contract shall be resolved through the good faith efforts of both parties. In accordance with NRS 338.150, if the claim, dispute or controversy cannot otherwise be settled, the parties shall use an alternate dispute resolution method before initiation of any judicial action. For purposes of this Contract, alternate dispute resolution shall mean non-binding mediation before an independent private mediator agreed to by the parties. If the parties cannot agree upon an independent private mediator within forty-five (45) days after notice of the claim is provided pursuant to Section 12.04 below, the party may proceed to file a judicial action with the Eighth Judicial District Court, Clark County, Nevada. The alternate dispute resolution proceedings shall take place in Clark County, Nevada, unless otherwise agreed to by the parties.

### **Section 12.02 Work to Proceed**

While the alternate dispute resolution or judicial action is pending, the CMAR shall proceed with the Work and maintain progress in accordance with the requirements of the Contract, unless otherwise mutually agreed upon in writing.

### **Section 12.03 Alternate Dispute Resolution Costs and Fees**

The fees and expenses of the alternate dispute resolution proceedings shall be equally shared by both parties. Each party is responsible for their own costs, expenses, consultant fees and attorney fees incurred in the presentation or defense of any claim, dispute or controversy that may arise between the parties.

### **Section 12.04 Notice of Disputes**

In the event that a claim, dispute, or controversy arises between the parties which are related to the progress or construction of the Project, the party asserting the claim, dispute or controversy must provide written notice thereof to the other party within thirty (30) days after its occurrence. The written notice shall set forth with specificity the nature of the claim, dispute or controversy, the relief sought, and other matters properly relating thereto. The notification is important to the recipient of the notice so that proper measures can be taken to properly observe and record the progress of the Work, to properly document the impact that the claim, dispute or controversy may have thereon, and to enable that party to properly verify any costs incurred by the party asserting the claim, dispute or controversy in connection therewith. The failure of the party to provide proper notice to the other party as required herein shall forever bar that party from any remedy thereon, including seeking any alternate dispute resolution and/or judicial action. The notice and time requirements set forth herein shall not apply to warranty claims or other construction defect claims that the Owner may have against the CMAR relating to the construction of the Work.

### **Section 12.05 Right of Judicial Action**

Any claim, dispute, or other matter in question between the parties concerning any provisions of this Contract that cannot otherwise be resolved between the parties through the use of the alternate dispute resolution required herein and, in the case of the CMAR, which has not been waived by the acceptance of final payment, may be submitted for judicial action. Prior to the exercise of this right, the party seeking judicial relief shall have provided the other party thirty (30) days prior written notice before filing such judicial action.

### **Section 12.06 Waiver of Jury Trial**

EACH PARTY IRREVOCABLY WAIVES ITS RIGHTS TO TRIAL BY JURY IN ANY JUDICIAL ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS CONTRACT OR THE TRANSACTIONS OR INTERACTIONS RELATING TO ITS SUBJECT MATTER.

## **SECTION 13. COMPLIANCE WITH THE LAWS**

**Section 13.01 General**

The CMAR shall comply with all federal, state and local laws and regulations applicable to construction of the Work including, but not necessarily limited to, licensing requirements, labor and health laws, and requirements for the payment of sales and use taxes on equipment, materials and supplies provided in connection with the Contract.

**Section 13.02 Compliance with Labor Laws**

- a) **Prevailing Wage Rate Law.** The CMAR and each Subcontractor shall comply with all federal, state and local labor laws with regard to minimum wages, overtime work, hiring and discrimination including, without limitation, NRS Chapter 338.
- b) **Prevailing Wage Rates.** For public work projects whose cost is one hundred thousand dollars (\$100,000) or more, the CMAR hereby acknowledges that pursuant to the provisions of NRS 338.040 and 338.050, any person who is employed by the CMAR or Subcontractor at the Work Site, or who performs work on a public work project (regardless of any contractual relationship alleged to exist between the workman and his other employer), is subject to the prevailing wage rate provisions of NRS 338.010 to 338.090, inclusive.

The CMAR is responsible for ensuring that the aforementioned persons are paid in accordance with the current prevailing wage rates approved by the State Labor Commissioner. Any Change Order causing a contract to equal or exceed one hundred thousand dollars (\$100,000) will subject the Contract to the provisions of Prevailing Wage Rate Law and to audit by the State Labor Commissioner. Any work performed after regular working hours, or on Sunday or a legal holiday, shall be performed without additional expense to the Owner.

In accordance with NRS Chapter 338, the CMAR shall post the current prevailing wage rates and applicable addenda in a place generally visible to the workmen. The prevailing wage rates and applicable addenda are available from the office of the State Labor Commissioner ([www.laborcommissioner.com](http://www.laborcommissioner.com)). The CMAR agrees to investigate, or to assist in the investigation of, each claimed violation of the prevailing wage law as may be requested by the Owner or the State Labor Commissioner.

Should this project exceed 36 months from the bid opening, which is determined to be upon receipt of the final GMP, new prevailing wage rates shall apply. All labor rates shall remain firm from the date of the bid opening through 36 months. An updated Exhibit \_\_\_ – Prevailing Wage Rates will be effective on the first day of the 37 month from the date of the bid opening and new prevailing wages shall apply. New prevailing wages will be obtained from the State of Nevada Labor Commissioner's Office prevailing wages at the time of the 37 month. Subject to the prevailing wage rate provisions of NRS 338.010 to 338.090 inclusive and Assembly Bill No. 190.

- c) **Certified Payroll Reports.** Pursuant to NRS Chapter 338, any public work contract awarded for one hundred thousand dollars (\$100,000) or more, the CMAR and each Subcontractor are required to:
- i) Keep an accurate record showing the (1) name of worker, (2) occupation of the worker, (3) if the worker has a driver's license or identification card, an indication of the state or other jurisdiction that issued the license or card and (4) the actual per diem wages and benefits paid to each worker employed by them in connection with the Work. These records are referred to as the Certified Payroll Reports.
  - ii) Keep an additional accurate record showing, for each worker employed by the CMAR or Subcontractor who has a driver's license or identification card (1) the name of the worker, (2) the driver's license or identification card number of the worker, and (3) the state or other jurisdiction that issued the license or card.
  - iii) The CMAR, and each Subcontractor through the CMAR, is required to submit a copy of the Certified Payroll Reports for each calendar month to the Owner no later than fifteen (15) calendar days after the end of the month. The CMAR shall be responsible for coordinating the submittal of all the Certified Payroll Reports for the Project, including the reports of each Subcontractor who is performing Work on the Project. The Owner requires the use of LCP Tracker software for the submission of certified payrolls by the CMAR and all of its Subcontractors.

The CMAR agrees to contact the Nevada State Labor Commissioner with any question concerning the payment of prevailing wage rates.

- d) **Penalties.** In accordance with NRS 338.060, the CMAR shall forfeit the penalty provided herein to the Owner for each calendar day or portion thereof that each workman employed on the Project (i) is paid by the CMAR or Subcontractor less than the designated wage rate for the work on the Project, (ii) the CMAR or Subcontractor willfully included inaccurate or incomplete information in the monthly Certified Payroll Report submitted to the Owner, (iii) the CMAR or

Subcontractor did not report to the Owner as required pursuant to NRS 338.070, and/or (iv) if a violation of more than one provision of subsection (i) through (iii) herein involves the same workman, the CMAR shall forfeit the penalty set forth in each violated subsection.

The CMAR hereby stipulates that the Owner may withhold not less than twenty dollars (\$20.00), nor more than fifty (\$50.00) for each and every violation of subparagraphs (i) through (iii) herein, the actual amount of which is according to a sliding scale based on the size of the CMAR's business which is adopted by the State Labor Commissioner, except that for violation of subparagraph (iii) the maximum penalty is limited to one thousand (\$1,000) for the first violation and five thousand (\$5,000) for each subsequent violation occurring during the term of the Contract.

In addition to any penalty imposed by the Labor Commissioner, if the CMAR or Subcontractor is determined by the Owner to have violated the provisions of this Section, the Owner may deduct from any payments due the CMAR, the costs of the proceedings associated with the investigation of each wage complaint including, but not limited to, employee salaries, investigator fees and attorney fees.

In addition to any monetary penalty imposed by the statute, the CMAR, or its Subcontractor, agent or representative, performing Work on the Project who neglects to comply with the prevailing wage rate requirements of NRS Chapter 338 is guilty of a misdemeanor.

e) **Copeland Anti-Kickback Law.** The CMAR shall comply with the Copeland Anti- Kick Back Act (19 U.S.C. 874) as supplemented in the Department of Labor Regulations (29 CFR Part 3). This Act provides that the CMAR or Subcontractor shall be 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 that person is otherwise entitled.

f) **Fair Employment Law.** The CMAR shall comply with the fair employment provisions of NRS 338.125.

1) Discrimination:

The City of Las Vegas is committed to promoting full and equal business opportunity for all persons doing business in Las Vegas. The Contractor acknowledges that the City has an obligation to ensure that public funds are not used to subsidize private discrimination. Contractor recognizes that if the Contractor or their subcontractors are found guilty by an appropriate authority of refusing to hire or do business with an individual or company due to reasons of race, color, religion, sex, sexual orientation, gender identity or gender expression, age, disability, national origin, or any other legally protected status, the City may declare the Contractor in breach of contract and terminate the Contract.

2) 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, color, religion national origin, sex, sexual orientation, gender identity or gender expression, age, disability, or any other legally protected status. 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. Any violation of such provision by a Contractor shall constitute a material breach of this Contract.

g) **Preferential Employment.** (This Section  IS  IS NOT Applicable to this Contract) The CMAR shall comply with the preferential employment provisions of NRS Chapter 338.130. This law requires, in all cases where persons are employed in the construction of public works, preference must be given, when the qualifications of applicants are equal: First, to persons who have been honorably discharged from the Army, Navy, Air Force, Marine Corps or Coast Guard of the United States, a reserve component thereof or the National Guard, and are citizens of the State of Nevada; Second, to other citizens of the State of Nevada. If these provisions of NRS 338 are not complied with by the CMAR engaged on the public work, the contract shall be void, and any failure or refusal to comply with any of these provisions of this section renders any such contract void..

h) **Federal Wage Rates.** (This Section  IS  IS NOT Applicable to this Contract) The CMAR shall comply that the Federal Wage Rates attached (*Attachment Exhibit \_\_\_\_*) and incorporated herein as a part hereof which are applicable to the Contract. The wages paid under the Contract shall conform to the Davis-Bacon Act of March 3, 1931, as amended (46 Stat. 1494, as amended, 40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor Regulations (29-

CFR, Part 5). If the State Wage Rates and Federal Wage Rates are not equal, the CMAR shall pay the higher prevailing rate.

- i) **Special Requirements.** (This Section  IS  IS NOT Applicable to this Contract) The CMAR shall comply with the requirements of Federal Requirements (*Attachment Exhibit I*), incorporated herein as a part hereof, which are applicable to the Contract.

### **Section 13.03 Compliance with Americans with Disabilities Act**

The Work shall comply with the (ADA) as amended to date. The CMAR shall construct the Work in compliance with the Americans with Disabilities Act and the rules and regulations promulgated thereunder and shall immediately notify the Owner of any conflicts between the Contract Documents and the Act or the rules and regulations promulgated thereunder.

### **Section 13.04 Compliance with Immigration Reform Control Act of 1986**

In accordance with the Immigration Reform and Control Act of 1986, the CMAR shall not employ unauthorized aliens in the performance of the Contract.

### **Section 13.05 Air Pollution Control**

- a) Prior to commencing the Work, the CMAR shall obtain a permit from the Clark County Department of Air Quality and Environmental Management.
- b) The CMAR shall perform the Work in a manner that does not discharge smoke, dust, or other air contaminants into the atmosphere from any source whatsoever, in violation of the laws, rules, and regulations of federal, state, and local government pertaining to air pollution including, but not necessarily limited to, the following:
- i) Nevada Revised Statute 445: Air Quality Regulations
  - ii) Title 40 Code of Federal Regulations (CFR) Part 82 Protection of Stratospheric Ozone – Refrigerant Regulations
  - iii) Adhering to all Clark County Department of Air Quality and Environmental Management regulations.
- c) The CMAR shall not be granted any time extensions for delays due to compliance with or violations of the aforementioned laws, rules, or regulations; and shall pay all compliance costs and violation fines and penalties. Such imposed fines and penalties shall not result in an increase in the Contract Amount, and are not subject to reimbursement by the Owner.

### **Section 13.06 Fire Prevention**

- a) The CMAR shall conform to all federal, state, and local laws and regulations pertaining to burning, fire prevention, and control within or adjacent to the Work Site. Necessary precautions to avoid and eliminate fire hazards shall be the responsibility of the CMAR.
- b) All tarpaulins used for any purpose during construction of the Work shall be made of material resistant to fire, water, and weather and shall bear UL labels. Lighting of any fires on the Project Site is strictly forbidden.
- c) The CMAR shall provide portable fire extinguishers compatible with the hazard of each work area and shall instruct its personnel in their location and use. Wherever welding or burning is conducted, inflammable materials shall be protected and a fire watch shall be provided by the CMAR to be present during the burning and welding operation to ensure that protective measures are taken and no fires result from such operation. The fire watch shall have fire extinguisher equipment readily available and know-how for proper use.

### **Section 13.07 Provisions Required by Law**

Each and every provision of Nevada Revised Statutes Chapter 338 and 624 and any other laws required to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or inserted incorrectly, then upon the application of either party, the Contract shall be amended to make such insertion or correction.

### **Section 13.08 Stormwater Pollution Control**

- a) Prior to commencing the Work, the CMAR shall obtain a National Pollutant Discharge Elimination System (NPDES) permit from Nevada Division of Environmental Protection (NDEP) for construction activities.

- b) The CMAR shall perform the Work so as to not discharge stormwater runoff containing pollutants or sediment into the waters of the United States (including municipal separate storm sewer systems [MS4s]) in violation of federal and state laws, rules, and regulations and the City's water pollution requirements.
- c) The CMAR shall:
  - i) Comply with the provisions of Nevada Revised Statutes, Chapter 445A: Water Pollution Control and City of Las Vegas Municipal Code 14.18; and
  - ii) Adhere to all Federal regulations under 40 CFR 122.26(b)(14).
  - iii) Provide to the City, prior to commencing construction operations, copies of all associated Permits or waivers.
- d) All information and forms pertaining to Nevada's Stormwater NPDES Permitting Program can be found on the following website: <http://ndep.nv.gov/bwpc/storm01.htm>.
- e) The City, state, and federal regulations identified above are hereby incorporated by reference as preconditions of this Contract. The CMAR shall familiarize itself with these regulations and practices, and is advised that prior to engaging in any construction activities, the CMAR shall submit a Notice Of Intent (NOI) to the Nevada Division of Environmental Protection. A Storm Water Pollution Prevention Plan (SWPPP) must be completed prior to submission of the NOI and must remain on the Project site and be updated as necessary for the duration of the project. As applicant, the CMAR is responsible for insuring that all persons on the Project site, including contractor and subcontractor personnel, abide by the conditions of the permit. As the applicant, the CMAR is responsible for supplying complete copies of the NOI and SWPPP to all project subcontractors.
- f) Upon completion of the Project, the CMAR must (at no additional cost to the Owner) permanently stabilize the construction area and file a Notice Of Termination (NOT) with NDEP to terminate the permit.
- g) The CMAR shall not be granted any time extensions for delays due to compliance with or violations of the aforementioned laws, rules, regulations, and requirements and shall pay all compliance costs and violation fines and penalties. Such imposed fines and penalties shall not result in an increase in the Contract Amount, and are not subject to reimbursement by the Owner.

### **Section 13.09 Disposal of All Wastes (Hazardous, Toxic, and Non-Hazardous)**

- a) CMAR shall be responsible for disposal of all waste materials including non-hazardous, hazardous, or toxic materials. CMAR shall make its own arrangements for disposal or recycle of all waste materials and shall pay all costs associated with the proper disposal of all waste.
- b) CMAR shall obtain written verification in terms of the landfill weight ticket, recycling certificate from the disposal site owner or operator with a written release from the disposal site owner or operator absolving the City of any and all responsibility in connection with the disposal of waste material on said property.
- c) Unless otherwise provided, full compensation for all costs involved in disposing of materials as specified in this section, including all costs of hauling, shall be considered as included in the price paid for the Contract items of work involving such material and no additional compensation will be allowed therefore.
- d) No waste material that is to be disposed shall be stockpiled on the City's property or the Project site longer than seven (7) days, unless otherwise approved by the City. Prior to initiating construction, the CMAR shall provide to the City a proposed temporary stockpile location. Construction debris and materials shall not be stockpiled in unapproved locations.
- e) For hazardous or toxic materials waste, CMAR shall comply with all local, State, and federal regulations including but not limited to Resources Conservation and Recovery Act (RCRA), Toxic Substance Control Act (TSCA). CMAR must fill out the Waste Manifest and provide a copy of the Manifest to the City. CMAR (or its subcontractor) shall provide all necessary licenses or permits documentation for handling, transportation and disposal of hazardous or toxic materials as submittal information to the City. CMAR is responsible to identify/classify the hazardous waste, getting an EPA hazardous waste site number by filing the paperwork with NDEP as the hazardous waste generator, retaining certified RCRA hazardous waste transporter subcontractor, properly dispose the RCRA hazardous waste in certified hazardous waste treatment or landfill sites, deactivated the EPA hazardous waste site number when the job is done, and provide safe handling training to CMAR employees.

**Section 13.10 Compliance with National Environmental Policy Act (NEPA)**

If this contract is sponsored in whole or part through Federal funding, CMAR is required to comply with NEPA requirements including but not limited to, compliance with Clean Air Act, Clean Water Act, Endangered Species Act, National Historic Preservation Act, Migratory Bird Treaty Act, Resource Conservations and Recovery Act (RCRA), Toxic Substance Control Act (TSCA).

**SECTION 14. CONTRACT INTERPRETATION****Section 14.01 General**

- a) **Governing Law.** The Contract shall be construed and enforced in accordance with the laws of the State of Nevada. Any action for the enforcement of any provision of this Contract shall be instituted in the County of Clark, State of Nevada.
- b) **References Hereto.** The terms "hereby," "hereof," "herein," "hereunder" and any similar terms refer to this Contract; and the term "hereafter" means after, and the term "heretofore" means before, the Contract Award Date.
- c) **Gender and Plurality.** Words of the masculine gender mean and include correlative words of the feminine and neuter genders and words importing the singular number mean and include the plural number and vice versa.
- d) **Persons.** Words importing persons include firms, companies, associations, joint ventures, general partnerships, limited partnerships, limited liability corporations, trusts, business trusts, corporations and other legal entities, including public bodies, as well as individuals.
- e) **Headings.** The table of contents and any headings preceding the text of the Articles, Sections and subsections of this Contract shall be solely for convenience of reference and shall not affect its meaning, construction or effect.
- f) **Entire Contract.** This Contract includes the requirements of the Plans and Specifications, the General Conditions and all appendices and clarifications thereto. Without limiting the generality of the foregoing, This Contract shall completely and fully supersede all other understandings and agreements among the Parties related to the execution of this Contract.
- g) **Standards of Workmanship and Materials.** Any reference in this Contract to materials, equipment, systems or supplies (whether such references are in lists, notes, Specifications, schedules, or otherwise) shall be construed to require the CMAR to furnish the same in accordance with the grades and standards therefore indicated in this Contract. Where this Contract does not specify any explicit quality or standard for construction materials or workmanship, the CMAR shall use only workmanship and new materials of a quality consistent with that of construction, workmanship and materials specified elsewhere in the Specifications, and the Specifications are to be interpreted accordingly.
- h) **Technical Standards and Codes.** References in this Contract to all professional and technical standards, codes and specifications are to the most recently published professional and technical standards, codes and specifications of the institute, organization, association, City or society specified, all as in effect as of the Contract Award Date. Unless otherwise specified to the contrary, (1) all such professional and technical standards, codes and specifications shall apply as if incorporated in the Specifications and (2) if any material revision occurs, to the CMAR's knowledge, after the Contract Date, and prior to completion of the applicable Work, the CMAR shall notify the Owner. If so directed in writing by the Owner, the CMAR shall perform the applicable Work in accordance with the revised professional and technical standard, code, or specification as long as the Guaranteed Maximum Price is adjusted, subject to cost substantiation, for any additional cost or expense attributable to any such revision.
- i) **Causing Performance.** A Party shall itself perform, or shall cause to be performed, subject to any limitations specifically imposed hereby with respect to Subcontractors or otherwise, the obligations affirmatively undertaken by such Party under this Contract.
- j) **Party Bearing Cost of Performance.** All obligations undertaken by each Party hereto shall be performed at the cost of the Party undertaking the obligation or responsibility, unless the other Party has explicitly agreed herein to bear all or a portion of the cost either directly, by reimbursement to the other Party or through an adjustment to the Guaranteed Maximum Price.

- k) **Assistance.** The obligations of a Party to cooperate with, to assist or to provide assistance to the other Party hereunder shall be construed as an obligation to use the Party's personnel resources to the extent reasonably available in the context of performance of their normal duties, and not to incur material additional overtime or third party expense unless requested and reimbursed by the assisted Party.
- l) **Good Construction Practice.** Good Construction Practice shall be utilized hereunder, among other things, to implement, and in no event displace or lessen the stringency of, the Contract Specifications or Contract Standards. In the event that, over the course of the performance of this Contract, Good Construction Practice evolves in a manner which in the aggregate materially and adversely affects the cost of compliance therewith by the CMAR, the CMAR shall be relieved of its obligation to comply with such evolved Good Construction Practice (but not the Good Construction Practice as of the Contract Award Date) unless the Owner agrees to adjust the Guaranteed Maximum Price on a cost-substantiated basis, as appropriate, to account for such additional costs. Except to the extent that the CMAR is relieved of its obligation to comply with such evolved Good Construction Practice, as provided above, in no event shall any evolution of Good Construction Practice, or any Owner election to pay or not pay any such additional costs, relieve the CMAR of its obligations hereunder.
- m) **Applicability and Stringency of Contract Standards.** The CMAR shall be obligated to comply only with those Contract Standards which are applicable in any particular case. Where more than one Contract Standard applies to any particular performance obligation of the CMAR hereunder, each such applicable Contract Standard shall be complied with. In the event there are different levels of stringency among such applicable Contract Standards, the most stringent of the applicable Contract Standards shall govern.
- n) **Delivery of Documents in Digital Format.** In this Contract, the CMAR is obligated to deliver reports, records, proposals and other documentary submittals in connection with the performance of its duties hereunder. The CMAR agrees that all such documents shall be submitted to the Owner both in printed form (in the number of copies indicated) and, at the Owner's request, in digital form. Digital copies shall consist of computer readable data submitted in Adobe PDF format which the Owner may reasonably request to facilitate the administration and enforcement of this Contract. If drawings, native AutoCAD files should be submitted unless an alternate format is requested by the Owner. In the event that a conflict exists between the signed or the signed and stamped hard copy of any document and the digital copy thereof, the signed or the signed and stamped hard copy shall govern. The Owner uses the Microsoft Office Suite of software and Primavera Expedition for contract administration
- o) **Drafting Responsibility. Neither Party** shall be held to a higher standard than the other Party in the interpretation or enforcement of this Contract as a whole nor any portion hereof based on drafting responsibility.
- p) **No Third-Party Rights.** This Contract is exclusively for the benefit of the Owner and the CMAR and shall not provide any third parties with any remedy, claim, liability, reimbursement, cause of action or other rights.
- q) **References to Include.** All references to "include" or "including" herein shall be deemed to be followed by the words "but not be limited to" or "without limitation" or words of similar import.

#### **Section 14.02 Intent and Correlation**

The Contract is intended to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by one portion or section of the Contract shall be as binding as if required by all. Any work not covered in the Contract will not be required unless it is consistent with the Contract Documents, and it is reasonably inferable or necessary to produce the intended results or provide a complete work. Words and abbreviations, which have well known technical or trade meanings, are used in the Contract Documents in accordance with such recognized meanings.

#### **Section 14.03 Governing Order of Contract Documents**

The Contract Documents include various divisions, sections, and conditions, which are essential parts for the work to be provided by the CMAR. In case of discrepancy, the lower number document will govern over the higher numbered document according to the following order of precedence, unless to do so would contravene the intent of the Contract Documents as determined by the Owner:

- i) Change Orders
- ii) Addenda, with those of later date having precedence over those of an earlier date
- iii) Owner-CMAR Contract

- iv) General Conditions
- v) Special Provisions, Drawings and Referenced Standards (these documents are to be construed together in determining the intent of the Owner)

#### **Section 14.04 Conflicting Conditions**

In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the CMAR shall (i) provide the better quality or greater quantity of Work or (ii) comply with the more stringent requirement; either or both in accordance with the Owner's interpretation.

#### **Section 14.05 Graphic Enhancement**

Graphic enhancement of any text of the Contract such as bolding, underlining, italics, etc. is added for ease of reference and shall not be interpreted as placing additional importance on the enhanced text or lessening the importance of text without such enhancement.

### **SECTION 15. MISCELLANEOUS PROVISIONS**

#### **Section 15.01 Regulatory Authorities**

- a) The CMAR does hereby acknowledge and agrees that the Department of Public Works, by or through its Architectural Services Division, City Engineer's Division, acting as the Owner's Designated Representative for purposes of the Project, does not have any control, authority or influence over the decisions or requirements of regulatory authorities which are separate from the Owner, or which are departments of the Owner including, but not limited to, the Building Department, Fire Department, Planning Department or other divisions within the Department of Public Works acting in a regulatory manner. The CMAR is responsible for complying with the requirements imposed by the regulatory authorities (including the departments of the City acting in a regulatory manner) and any delays resulting to the CMAR in the performance of the Contract from having to comply with such requirements are solely the responsibility of the CMAR, and not attributable in any manner to the Owner.
- b) The Owner's Designated Representative acts in a capacity similar to that of a representative working for a private property owner which is to ensure that the City receives a quality product, delivered on schedule, for a fair price. Furthermore, the Owner's Designated Representative does not speak or act for any regulatory authority, nor does any regulatory authority speak or act for the Owner's Designated Representative. The CMAR agrees that its relationship with the regulatory authorities having jurisdiction over the Project is separate from its relationship with the Owner's Designated Representative, and that the CMAR's interaction with each regulatory authority is to be conducted without assistance from the Owner's Designated Representative.

#### **Section 15.02 Subcontracts**

- a) Any subcontract entered into by the CMAR and its Subcontractor or material Supplier shall not create any contractual relationship between the Owner and the Subcontractor or material Supplier. It is the CMAR's responsibility to ensure all subcontract agreements and material supply contracts comply with the term and conditions set forth in this Contract and applicable Statutes
- b) The CMAR agrees to provide a copy of each subcontract (including contracts for the purchase of supplies) entered into by the CMAR in connection with the Project if so requested by the Owner for any of the reasons set forth in NRS 338.140 (1)(d).
- c) The CMAR shall not substitute a Subcontractor for any portion of the Work which was previously indicated would be performed by the CMAR unless such substitution meets the requirements of NRS Chapter 338.
- d) If the CMAR submitted with its proposal a signed and notarized Affidavit and received a preference in bidding, the contract between the CMAR and Subcontractor and each contract between a subcontractor and a lower-tier subcontractor must provide that:
  - (i) If a party to the contract causes the CMAR to fail to comply with the requirements of the Affidavit, the party is liable to the Owner for a penalty as defined by statute:
  - (ii) The right to recover the amount determined pursuant to paragraph (a) by the Owner may be enforced by the Owner directly against the party that causes the failure to comply; and
  - (iii) No other party to the contract is liable to the Owner for a penalty.

**Section 15.03 Audit of Records**

- a) The CMAR agrees to maintain the financial books and records (including supporting documentation) pertaining to the performance of this Contract according to standard accounting principles and procedures. The books and records shall be maintained for a period of three (3) years after completion of this Contract, except that books and records which are the subject of an audit finding shall be retained for three (3) years after such finding has been resolved. If the CMAR goes out of business, the CMAR shall forward the books and records to the Owner to be retained by the Owner for the period of time required herein.
- b) The Owner, or its Designated Representative(s), shall have the right to inspect and audit (including the right to copy and/or transcribe) the books and records of the CMAR pertaining to the performance this Contract during normal business hours. The Owner will provide prior written notice to the CMAR of the audit and inspection. If the books and records are not located within Clark County, the CMAR agrees to deliver them to the Owner, or to the address, designated by the Owner, within Clark County. In lieu of such delivery, the CMAR may elect to reimburse the Owner for the cost of travel (including transportation, lodging, meals and other related expenses) to inspect and audit the books and records at the CMAR's office. If the books and records provided to the Owner are incomplete, the CMAR agrees to remedy the deficiency after written notice thereof from the Owner, and to reimburse the Owner for any additional costs associated therewith including, without limitation, having to revisit the CMAR's office. The CMAR's failure to remedy the deficiency shall constitute a material breach of this Contract. The Owner shall be entitled to its costs and reasonable attorney fees in enforcing the provisions of this Section.
- c) If, at any time during the term of this Contract, or at any time after the expiration or termination of the Contract, the Owner or the Owner's Designated Representative(s) finds the dollar liability is less than payments made by the Owner to the CMAR, the CMAR agrees that the difference shall be either: (a) repaid immediately by the CMAR to the Owner or (b) at the Owner's option, credited against any future billings due the CMAR.

**Section 15.04 Independent Contractor**

The CMAR represents that it is fully experienced and properly qualified to perform the class of Work provided for herein, and that it is properly licensed, equipped, organized and financed to perform such Work. The CMAR shall act as an independent contractor and not as an agent of the Owner in performing the Contract. The CMAR shall maintain complete control over its employees and all of its subcontractors. Nothing contained in the Contract or any subcontract awarded by the CMAR shall create any contractual relationship between any such subcontractor and the Owner. The CMAR shall perform the Work in accordance with its own methods subject to compliance with the Contract.

**Section 15.05 Severability**

The invalidity, illegality, or unenforceability of any provision of the Contract or the occurrence of any event rendering any portion or provision of the Contract void shall in no way affect the validity or enforceability of any other portion or provision of the Contract. Any void provision shall be deemed severed from the Contract, and the balance of the Contract shall be construed and enforced as if the Contract did not contain the particular portion of provision held to be void. The parties further agree to amend the Contract to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this clause shall not prevent the entire Contract from being void should a provision which is of the essence of the Contract to be determined void.

**Section 15.06 Assignment of Contractual Rights**

The CMAR shall not assign, transfer, convey or otherwise dispose of the Contract or its right, title or interest in or to the same, or any part thereto.

**Section 15.07 Ownership and Use of Documents**

The Drawings and Special Provisions are and shall remain the Owner's property unless a consultant is used in the preparation of the Contract Documents in which case ownership shall be according to the agreement between the Owner and the Consultant. They are to be used only with respect to the Project and are not to be used on any other project. Submission or distribution to meet official regulatory requirements for other purposes in connection with the Project is not to be construed as infringement of the copyright of the Owner's or Consultant's common law or other reserved rights.

**Section 15.08 Prohibited Interests**

No official of the Owner, who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the Project, shall become directly or

indirectly interested personally in the Contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of, or for the Owner, who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the Project, shall become directly or indirectly interested personally in the Contract or in any part hereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Project.

#### **Section 15.09 Waiver**

No waiver of any breach or failure to enforce any of the terms, conditions or covenants of the Contract shall be construed to be a waiver of any succeeding breach of the same or similar provision of the Contract.

#### **Section 15.10 No Personal Liability**

No official, officer, employee or agent of the Owner shall in any way be personally liable or responsible for any covenant or agreement herein contained, whether expressed or implied, or for any statement, representation or warranty made in connection with the Contract.

#### **Section 15.11 Contract Modification**

The Contract represents the entire and integrated agreement between the Owner and the CMAR and supersedes prior negotiations, representations or agreements, either written or oral, made by either party. The Contract may only be amended by a Modification.

#### **Section 15.12 Required Reporting for Bidder's Preference on Public Work Projects**

- a) In accordance with NRS 338.0117 for contracts awarded as the result of the bidders' preference being received, CMAR shall maintain, and submit as required, the reports as indicated in this Section 15.12. It is the CMAR's responsibility to maintain, documentation required to substantiate the information provided in the reports, including information for all Subcontractors on the Project.
- b) At least 50 percent of the workers employed on the Project, including, without limitation, any employees of the CMAR and of any Subcontractor engaged on the Project, will hold a valid driver's license or identification card issued by the State of Nevada Department of Motor Vehicles ("DMV");
  - i) The CMAR shall keep or cause to be kept, for both the CMAR and all Subcontractors, an accurate record showing, for each worker employed by the CMAR or Subcontractor in connection with the Project:
    - 1) The name of the worker;
    - 2) The occupation of the worker;
    - 3) If the worker has a driver's license or identification card, an indication of the state or other jurisdiction that issued the license or card; and
    - 4) The actual per diem, wages and benefits paid to the worker.
  - ii) An additional accurate record showing, for each worker employed by the CMAR or Subcontractor in connection with the public work who has a driver's license or identification card;
    - 1) The name of the worker;
    - 2) The driver's license number or identification card number of the worker; and
    - 3) The state or other jurisdiction that issued the license or card.
  - iii) The records maintained pursuant to paragraph (i) above must be must be open at all reasonable hours to the inspection by the Owner and the public as provided by NRS 239.010. The CMAR engaged on the Project shall ensure that a copy of each record for each calendar month is received by the Owner no later than fifteen 15 days after the end of the month. The copy of the record maintained pursuant to paragraph (ii) is confidential and **not open** to public inspection. The CMAR shall maintain the records for a minimum of two years after final payment is received from the Owner.
- c) All vehicles used primarily for the Project will be:
  - i) Registered and partially apportioned to Nevada pursuant to the International Registration Plan, as adopted by the DMV pursuant to NRS 707.826; or

- ii) Registered in the State of Nevada;
- 1) The CMAR shall keep or cause to be kept, for both the CMAR and all Subcontractor vehicles primarily used on the Project, an accurate record, updated monthly, showing a listing of vehicles being used on this Project. The list must include the Nevada State license plate number and registration information for both General CMAR and Subcontractors vehicles.
- 2) The records maintained pursuant to paragraph must be open at all reasonable hours to the inspection by the Owner and the public as provided in NRS 239.010. The CMAR shall maintain the records for a minimum of two years after final payment is received from the Owner.
- d) If applying to receive a preference in bidding pursuant to subsection 3 of NRS 338.1727 or subsection 2 of NRS 408.3886, at least 50 percent of the design professionals working on the Project, including, without limitation, employees of the Design-Build team and of any Subcontractor engaged on the Project, will have a valid driver's license or identification card issued by the State of Nevada DMV;
  - 1. The CMAR shall keep or cause to be kept, for design professionals employed by either the CMAR and all Subcontractors, an accurate record, updated monthly, of the following information:
    - 1) The name of the design professional;
    - 2) The state or other jurisdiction that issued the license or card
    - 3) The drivers' license number or identification card number of the design professional; and
  - 2. The records maintained pursuant to paragraph (i) subsection (1) and (2) must be open at all reasonable hours to the inspection by the Owner and the public as provided in NRS 239.010. The copy of the record maintained pursuant to paragraph (i) subsection (3) is confidential and not open to public inspection. The CMAR shall maintain the records for a minimum of two years after final payment is received from the Owner.
- e) The CMAR and any Subcontractor engaged on the Project will maintain and make available for the inspection within this State his or her records concerning payroll relating to the Project.

### **Section 15.13 Owner's Recovery of Bidders Preference Penalties**

- (a) If the Owner determines that the CMAR has failed to comply with a requirement certified in its Public Works Bidders Preference Affidavit the Owner may seek to recover by civil action penalties for failure to comply in the amount defined by statute.
- (b) If the CMAR submitted with its Proposal a signed and notarized Affidavit receives a preference in bidding and is awarded the construction contract, the contract between the CMAR and Owner must provide that;
  - (i) If a party to the contract causes the CMAR to fail to comply with the requirements of the Affidavit, the party is liable to the Owner for a penalty as defined by statute:
  - (ii) The right to recover the amount determined pursuant to paragraph (a) by the Owner may be enforced by the Owner directly against the party that causes the failure to comply; and
  - (iii) No other party to the contract is liable to the Owner for a penalty.

### **Section 15.14 Counterpart Signatures [CAO-08/11/2022]**

This Contract may be executed in counterparts. All such counterparts will constitute the same contract and the signature of any party to any counterpart will be deemed a signature to, and may be appended to, any other counterpart. Executed copies hereof may be delivered by facsimile or e-mail and upon receipt will be deemed originals and binding upon the parties hereto, regardless of whether originals are delivered thereafter.

The parties agree that this Contract may be signed electronically via the Owner's designated electronic signature platform, and that the electronic signatures appearing herein shall be considered the same as handwritten signatures for the purposes of validity, admissibility, and enforceability.



# EXHIBIT B

## GMP SCHEDULE OF VALUES

**Exhibit B**  
**GMP Schedule of Values****Civic Center Building & Plaza**

City of Las Vegas

GMP #1R4 - Phase 1

Prepared On: February 14, 2023

#	Description		Base Price
	<b>GENERAL</b>		<b>\$368,715</b>
<b>GEN1</b>	General Temporary Construction Requirements		<b>\$368,715</b>
	<b>DEMOLITION / OFF-SITE INFRASTRUCTURE</b>		<b>\$0</b>
	<b>SITE WORK (ROUGH)</b>		<b>\$4,329,361</b>
<b>7</b>	Survey & Staking		<b>\$152,090</b>
<b>8</b>	Demolition, Earthwork, Paving, & Utilities	TAB Contractors	<b>\$4,028,430</b>
<b>11</b>	Dust Control		<b>\$98,879</b>
<b>12</b>	Storm Water Management		<b>\$49,962</b>
	<b>SITE WORK (FINISH)</b>		<b>\$40,666</b>
<b>17</b>	Tree Protection & Maintenance		<b>\$40,666</b>
	<b>STRUCTURE</b>		<b>\$0</b>
	<b>ENCLOSURE</b>		<b>\$0</b>
	<b>INTERIOR FINISHES</b>		<b>\$0</b>
	<b>SPECIALTIES</b>		<b>\$0</b>
	<b>EQUIPMENT</b>		<b>\$0</b>
	<b>MEP SYSTEMS</b>		<b>\$0</b>
	<b>UNIQUE FEATURES OF WORK</b>		<b>\$0</b>
	<b>Subtotal</b>		<b>\$4,738,742</b>
<b>RATE</b>	<b>CONTINGENCIES &amp; ALLOWANCES</b>		<b>\$144,547</b>
2.5%	Contractor Construction Contingency		\$144,547
	<b>Subtotal</b>		<b>\$4,883,289</b>
<b>RATE</b>	<b>GENERAL CONDITIONS</b>		
LS	General Conditions		\$522,483
	<b>Subtotal</b>		<b>\$5,405,772</b>
<b>RATE</b>	<b>INSURANCE, BONDS, AND BUILDERS RISK</b>		<b>\$159,863</b>
1.10%	General Liability		\$63,601
1.38%	Subcontractor Default Insurance		\$57,692
0.67%	Payment and Performance Bond		\$31,750
LS	Builders Risk Insurance		\$6,820
	<b>Subtotal</b>		<b>\$5,565,635</b>
<b>RATE</b>	<b>CONTRACTOR'S FEE</b>		
4.00%	Construction Manager At Risk Fee		\$216,231
	<b>GMP #1 Total</b>		<b>\$5,781,866</b>
	Owner Contingency		\$1,200,000
	<b>GMP #1 Total Including Owners Contingency</b>		<b>\$6,981,866</b>



**EXHIBIT C  
SCHEDULE OF GMP ALLOWANCE  
QUALIFICATIONS AND CLARIFICATIONS**

**EXHIBIT C-1  
OWNER CONTINGENCY**



## Exhibit C - Schedule of GMP Allowances, Qualifications and Clarifications - GMP#1 R4

City of Las Vegas – Civic Building and Plaza  
Revised, February 14, 2023

Las Vegas, Nevada

The Schedule of GMP Allowances, Qualifications and Clarifications is a written explanation clarifying the scope, assumptions and exclusions used in establishing this Guaranteed Maximum Price (GMP) #1 for the City of Las Vegas – Civic Building and Plaza project. This GMP #1 is based on CMAR's incorporation of the scope shown in the plans and the scope listed in the Enumeration of Documents as it pertains to the below:

- General Conditions & General Requirements – for Phase 1 scope only
- Survey & Staking
- Demolition, Earthwork, & Utilities

This GMP #1 is valid thru the anticipated NTP date listed below.

## Clarifications

### Schedule

- This GMP #1 Proposal is based upon performance of the work per the enclosed Construction Schedule, which is an integral part of this Proposal.
- Below is a list of critical milestones that have been incorporated into the Construction Schedule:
  - Permit Milestones:
    - Phase 1 – Demolition & Grading Permit: 3/8/23
    - Dewatering Permit: 5/24/23
    - Offsite Permit (Sewer Line Relocation): 4/3/23
  - NTP Milestones:
    - GMP #1 Notice to Proceed Date: 3/8/23
  - Milestones by Others:
    - Overhead Lines & Poles Relocation Complete: 3/8/23
    - Removal of Site Items (Billboard, Cell Tower, etc): 3/8/23
- We anticipate normal working hours and workdays.
- We have accounted for normal weather days in the project schedule. Weather conditions will be considered abnormal if they exceed the number of days shown in the table below:

Month	Number of Reasonably Anticipated Days of Adverse Weather Per Month	Average Precipitation
March 2023	1	0.73
April 2023	0	0.35
May 2023	0	0.24
June 2023	0	0.12
July 2023	1	0.49



# Exhibit C - Schedule of GMP Allowances, Qualifications and Clarifications - GMP#1 R4

City of Las Vegas – Civic Building and Plaza  
Revised, February 14, 2023

Las Vegas, Nevada

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## General Clarifications

- The Price included in this GMP #1 is considered lump sum and the individual line items are not separate price maximum values.
- The value provided in the GMP #1 Proposal includes all direct and indirect construction costs but does not include typical project "soft costs". These costs include, but are not limited to design professional fees, permits and plan review fees, utility connection fees, land acquisition costs, "loose" furniture, fixtures, and equipment (FF&E), special inspections, etc.
- CMAR does not warrant or guarantee that the Contract Documents comply with the Authorities Having Jurisdiction (AHJ), or local regulations or requirements. This is the responsibility of the Architect, and we assume all requirements will be incorporated into the Contract Documents. Any costs due to changes made by the permitting agencies after submission of this GMP #1 Price are subject to change.
- General Conditions and General Requirements are only included for GMP #1 and for a duration of five (5) month starting from the formal Notice to Proceed.
- Cost of Payment and Performance Bonds only include costs for direct cost of work.

## Contingencies

- **Contractor Construction Contingency** – CMAR Construction Contingency is included in this GMP #1 Price and is intended to be used at CMAR's discretion to cover costs that have not been completely identified as trade specific scope on the GMP setting documents and may require further clarification or coordination. These costs include, but not limited to, scope gap, coordination issues between trades, and missed scope during the bidding process. The CMAR Construction Contingency is not intended to account for design revisions or additional scope requests by the design / owner during construction. Each contingency utilization will be marked up with Subcontractor Default Insurance (1.38%) and Payment and Performance Bonding (0.67%).
- **Owner Contingency** – An Owner Contingency has been included in this GMP #1 and may be utilized at the Owner's discretion to address issues including but not limited to the following issue described below. Each Owner Contingency utilization will be marked up with Subcontractor Default Insurance (1.38%), Payment and Performance Bonding (0.67%), General Liability Insurance (1.10%), and CMAR Fee (4%).
  - Contaminated Soil Remediation – Intended to be used on an as-needed basis to cover costs incurred due to encountering contaminated soil during construction. These costs may include, but are not limited to, excavation, removal, and proper disposal of contaminated soil. Any costs incurred in excess of the contingency provided are subject to change order including related costs for extended General Conditions.



## Exhibit C - Schedule of GMP Allowances, Qualifications and Clarifications - GMP#1 R4

City of Las Vegas – Civic Building and Plaza  
Revised, February 14, 2023

Las Vegas, Nevada

- Construction Dewatering – Intended to be used on an as-needed basis to cover costs incurred due to encountering native and/or contaminated groundwater during construction. These costs may include, but are not limited to the following:
  - Installation, monitoring, and removal of a pumping system.
  - Installation and removal of a temporary water storage tank.
  - Pumping, transportation and disposal fees for contaminated water, if any.
  - The Owner Contingency is not intended to account for permit applications or fees, or dewatering efforts required after Substantial Completion. Any costs incurred in excess of the contingency provided are subject to change order including related costs for extended General Conditions.
- Caliche / Hard Dig Contingency – Intended to be used on an as-needed basis to cover costs incurred due to encountering caliche and/or hard dig conditions during construction. These costs may include, but are not limited to, removal of material with specialized and/or oversized equipment and disposal of unsatisfactory and/or over-sized materials off-site. Any costs incurred in excess of the contingency provided are subject to change order including related costs for extended General Conditions.

### Material Economic Impacts

The Parties acknowledge that some of the materials and products to be used and installed in the construction of this project may become unavailable, delayed in shipment and/or subject to price increases due to circumstances beyond the control of the Contractor, including the COVID-19 pandemic. If a specified product is unavailable or shipment is delayed, Contractor shall provide written notice and shall be afforded additional time and substitute products may be considered. If there is an increase in price of materials, equipment, or products between the date of this contract and the time when the job is ready for the installation of the affected material, the amount of this contract shall be increased to reflect the additional cost to obtain the materials, provided that the Contractor gives the Owner written notice and documentation of the increased costs. The cost increase will be limited to the increase in Consumer Price Index (CPI) from time of award to ordering.

### Hourly Rates

The following agreed to hourly rates will be used to determine and define “Actual Costs”. The Actual Costs for each of the agreed to rates includes all normal and customary payroll paid by the Contractor plus all fringe benefits, taxes and insurances.

	<u>Standard Rate</u>	<u>Overtime Rate</u>
<b>Project Management</b>		
Director of Operations	180	-
Project Director	155	-
Sr. Project Manager	142	-
Project Manager	118	-
Mechanical QC Manager	125	-
Asst. Project Manager	105	-
Project Engineer	90	-



## Exhibit C - Schedule of GMP Allowances, Qualifications and Clarifications - GMP#1 R4

City of Las Vegas – Civic Building and Plaza  
Revised, February 14, 2023

Las Vegas, Nevada

Scheduler	105	-
Construction Coordinator	88	-
Project Accountant	88	-
Contracts Administrator	88	-
Assistant Contracts Administrator	67	5
<b>Field Operations</b>		
General Superintendent	155	-
Sr. Superintendent	135	-
Superintendent	125	-
Asst. Superintendent	105	-
Safety Director	100	-

## Scope-Specific Clarifications

CORE's GMP #1 Price is based upon plans and specifications as itemized in the enclosed Enumeration of Documents, including the following Scope-Specific Assumptions and Clarifications.

### 008 | DEMOLITION, EARTHWORK, & UTILITIES

- Scope of work includes all Phase 1 scope of work, and mass grading of the site in preparation for future Phase II, Phase III Buildings and Plaza.
- Work not indicated on the current drawings, but included in the GMP #1 Price includes:
  - Removal of NVE pole foundations
  - Removal of billboard foundations
  - Removal of cell tower foundations

## General Exclusions

- Typical Project "Soft Costs" unless otherwise specified. These include, but are not limited to, design professional costs, permits and fees, utility connection charges, land acquisition, legal fees, equipment, and furnishings (FF&E), etc.
- Testing, special inspections, and any associated overtime or staff and resource costs for additional inspections not required by Code, permit, or the contract documents requirements or determined by the Design Team.
- Scope of work categories not specifically identified above are excluded. These items will be included in a future proposal.
- All work associated with existing utilities other than those identified within the Phase 1 documents.
- Building Commissioning.
- All work identified on construction documents as "by others" or "future".
- Costs associated with contaminated soil removal and disposal. Refer to Owner Contingencies.
- Costs associated with hard dig/caliche removal and disposal. Refer to Owner Contingencies.

## Exhibit C - Schedule of GMP Allowances, Qualifications and Clarifications - GMP#1 R4

*City of Las Vegas – Civic Building and Plaza  
Revised, February 14, 2023*

*Las Vegas, Nevada*

- 
- Costs associated with construction dewatering and potential contaminated water removal and disposal. Refer to Refer to Owner Contingencies.
  - RTC Offsite Improvements on Bonneville including, but not limited to: Curb, gutter, sidewalk, ADA ramp, bus stop and shelter, landscaping, and any other related street improvements.
  - All work associated with new NVE, COX, Century Link, and SW Gas, other than abandoned utilities.
  - General Conditions and General Requirement costs associated with work not included in GMP #1.

### **END OF BASIS OF PROPOSAL**



EXHIBIT D

TECHNICAL SPECIFICATIONS  
AND DRAWINGS



## Exhibit D Technical Specifications and Drawings

**GMP #1R2**

PHASE 1 - 100% CD - PROJECT MANUAL					
Specification/ Drawing	Description	Spec Date	Stamp Date	CORE Received Date	Revision
<b>Division 00</b>	<b>Procurement Documents</b>				
00 01 05	Certification Page	15-Nov-22	15-Nov-22	17-Nov-22	N/A
00 01 10	Table of Contents	15-Nov-22	15-Nov-22	17-Nov-22	N/A
<b>Division 01</b>	<b>General Requirements</b>				
01 10 00	Summary	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 20 00	Price and Payment Procedures	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 30 00	Administrative Requirements	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 32 30	Network Analysis Scheduled	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 33 00	Submittal Procedures	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 40 00	Quality Requirements	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 50 00	Temporary Facilities and Controls	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 56 39	Temporary Tree Protection	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 60 00	Product Requirements	15-Nov-22	15-Nov-22	17-Nov-22	N/A
01 70 00	Execution and Closeout Requirements	15-Nov-22	15-Nov-22	17-Nov-22	N/A
<b>Division 02</b>	<b>Existing Conditions/Site</b>				
02 41 00	Demolition	15-Nov-22	15-Nov-22	17-Nov-22	N/A
<b>Division 31</b>	<b>Earthwork</b>				
31 11 00	Clearing and Grubbing	15-Nov-22	15-Nov-22	17-Nov-22	N/A
31 23 00	Excavation and Fill	15-Nov-22	15-Nov-22	17-Nov-22	N/A
<b>Division 32</b>	<b>Exterior Improvements</b>				
32 12 20	Bituminous Concrete Pavement	15-Nov-22	15-Nov-22	17-Nov-22	N/A
32 16 50	Concrete Sidewalks, Curb, and Gutter	15-Nov-22	15-Nov-22	17-Nov-22	N/A
<b>Division 33</b>	<b>Utilities</b>				
33 10 00	Water Utilities	15-Nov-22	15-Nov-22	17-Nov-22	N/A
33 31 00	Sanitary Sewage	15-Nov-22	15-Nov-22	17-Nov-22	N/A
33 41 08	High Density Polyethylene Storm Drainage	15-Nov-22	15-Nov-22	17-Nov-22	N/A
PHASE 1 - 100% CD - DRAWINGS					
Specification/ Drawing	Description	Drawing Date	Stamp Date	CORE Received Date	Revision
AG1.00-1	Cover Sheet	15-Nov-22	15-Nov-22	17-Nov-22	N/A
AG1.01-1	Index, General Information, Abbreviations and Legend	15-Nov-22	15-Nov-22	17-Nov-22	N/A
C1-1	Cover Sheet	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
C2-1	General Notes	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
C3-1	Legend, Abbreviations, and Quantities	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
DP1-1	Demolition Plan 1	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
DP2-1	Demolition Plan 2	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
P1-1	Plan and Profile 1	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
MU-1	Utility Plan	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
PAV-1	Pavement Plan	15-Dec-22	14-Dec-22	21-Dec-22	PBC1
L0.10-1	Tree Protection Plan	15-Nov-22	14-Dec-22	17-Nov-22	N/A
AS0.01-1	Site Demolition Plan	15-Nov-22	15-Nov-22	17-Nov-22	N/A
ADDENDA & CLARIFICATIONS					
Addenda	Description	Drawing Date	Stamp Date	CORE Received Date	Revision
ADD1	Addendum No 1	7-Dec-22	N/A	7-Dec-22	ADD1
PBC1	Post Bid Clarification Documents	15-Dec-22	N/A	21-Dec-22	PBC1



# EXHIBIT E

## COPY OF KEY PERSONNEL LIST

## Exhibit E

### Key Personnel List

*City of Las Vegas – Downtown Civic Center Building and Plaza*

*FEBRUARY 14, 2023*

*Las Vegas, Nevada*

---

- |                                      |                    |
|--------------------------------------|--------------------|
| 1) CMAR REPRESENTATIVE:              | Mark Hobaica       |
| 2) CMAR REPRESENTATIVE'S SUPERVISOR: | Seth Maurer        |
| 3) SENIOR PROJECT MANAGER:           | Chris Schratwieser |
| 4) PROJECT MANAGER:                  | Kevin McCormack    |
| 5) SENIOR SUPERINTENDENT:            | Matt Colman        |
| 6) CONSTRUCTION SUPERINTENDENT:      | Victor Alarcon     |
| 7) COST ESTIMATOR:                   | Marty Harpster     |
| 8) SCHEDULER:                        | Jorge Alarcon      |
| 9) BIDABILITY REVIEWER:              | Paul Salisbury     |
| 10) SAFETY MANAGER:                  | Derek Rosse        |
| 11) QUALITY MANAGER:                 | Derek Rosse        |
| 12) MECHANICAL/PLUMBING ENGINEER:    | Paul Salisbury     |
| 13) PRECONSTRUCTION MANAGER:         | Jeff Jerome        |
| 14) CONTRACTS ADMINISTRATOR:         | Kathleen Hamilton  |
| 15) PROJECT COORDINATOR:             | Amy Scholes        |



# EXHIBIT F GEOTECHNICAL AND ENVIRONMENTAL REPORTS

# Exhibit F

## Geotechnical Evaluation

### Civic Center Building and Plaza

### Main Street and Bonneville Avenue

### Las Vegas, Nevada

LGA Architecture  
241 West Charleston Boulevard, Suite 107 | Las Vegas, Nevada 89102

December 27, 2021 | Project No. 304840001



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS



# Geotechnical Evaluation Civic Center Building and Plaza Main Street and Bonneville Avenue Las Vegas, Nevada

Mr. Lance Kirk, AIA  
LGA Architecture  
241 West Charleston Boulevard, Suite 107 | Las Vegas, Nevada 89102

December 27, 2021 | Project No. 304840001

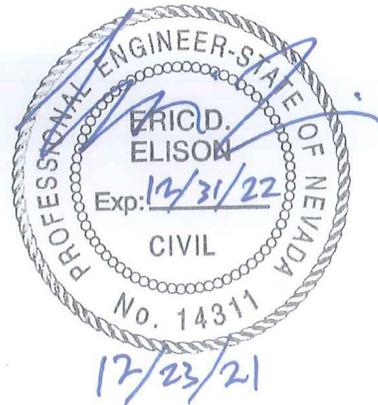
A handwritten signature in blue ink, appearing to read "Moussa Subeh-Tabor".

**Moussa Subeh-Tabor, EIT**  
Senior Staff Engineer

MST/EDE/cas

A handwritten signature in blue ink, appearing to read "Eric Elison".

**Eric Elison, PE**  
Principal Engineer



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## 1 INTRODUCTION

In accordance with your request, Ninyo & Moore has performed a geotechnical evaluation for the proposed Downtown Civic Center Building and Plaza project to be located on the northeast corner of Main Street and Bonneville Avenue in Las Vegas, Nevada (Figure 1). The purposes of our geotechnical study were to evaluate the subsurface soil conditions at the project site and to provide design and construction recommendations regarding geotechnical aspects of the project. This report presents the findings of our subsurface exploration, results of our laboratory testing, conclusion regarding subsurface soil conditions at the site, and geotechnical recommendations for the design and construction of this project. We understand that this project will be designed in accordance with applicable provisions of the 2018 International Building Code (ICC, 2018) and Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018).

## 2 SCOPE OF SERVICES

The scope of our services included the following:

- Review of pertinent background data, including in-house geotechnical data, aerial photographs, and published geologic maps and literature.
- Coordination and mobilization for subsurface exploration. Marking of existing utilities in areas of our exploratory borings was conducted through Underground Service Alert (USA).
- Performance of a refraction microtremor (ReMi) survey to evaluate seismic site class in general accordance with the 2018 International Building Code. The survey was performed to characterize the average subsurface shear wave velocity to a depth of approximately 100 feet below existing ground surface.
- Drilling, logging, and sampling of 11 exploratory borings to depths ranging from approximately 15 to 75 feet. The purpose of the borings was to evaluate the subsurface profile and to obtain soil samples for laboratory testing.
- Performance of laboratory tests to evaluate physical and engineering properties of the subsurface soils, including in-place moisture content and density, gradation, plasticity, consolidation, swell potential, pH, reduction/oxidation potential, sulfide content, soluble chloride content, soluble sodium sulfate content, sulfate content, sodium content, and solubility potential (total soluble salts).
- Compilation and analysis of accumulated data.
- Preparation of this geotechnical evaluation report presenting our findings, conclusions, and recommendations regarding the subject project.

### 3 PROJECT DESCRIPTION

Based on the referenced Civic Center Plaza Conceptual Site Layout (undated), we understand that it is planned to develop an approximately 3.5-acre site with up to two five-story office buildings and a plaza area. The project is divided into three phases. Phase 1 will consist of preparation of the site, including demolition of a building, vacating the alleyway (located along the center of the site), and removal of underground and above-ground utilities. Phase 2 will include design and construction a new city-owned building (Building One) and a civic plaza. Building One, which will be constructed adjacent to Main Street, will be five stories high and approximately 125,000 to 135,000 square-feet in size. This structure will include a half to full basement or subterranean level (approximately 5 to 10 feet below grade), which will include parking and main utility placement areas. Phase 3 will consist of design and construction of Building Two, which will be constructed adjacent to Bonneville Avenue. Building Two is anticipated to be up to five stories high and approximately 100,000 square-feet in size. It is anticipated the buildings will be of steel-frame and/or concrete construction supported on conventional spread foundations. The structures will impose relatively moderate to high structural loads typical of these types of construction. The project will also include retaining walls, asphalt concrete paved access and parking areas, and exterior concrete flatwork. We have assumed that there is a groundwater development plan for the area.

### 4 GENERAL SITE CONDITIONS

The subject site is located at the northeast corner of East Bonneville Avenue and South Main Street in Las Vegas, Nevada. The site is generally bounded by South Main Street to the west, East Clark Avenue to the north, South 1<sup>st</sup> Street to the east, and East Bonneville Avenue to the south.

At the time of field reconnaissance, the project site consisted of a relatively flat, asphalt concrete paved parking lot with an existing building located in the northwest portion of the site. A fenced, gravel-covered vacant lot was located in the southwest portion of the site in an area adjacent to the existing building. Indications of underground utilities observed at the site included abandoned gas lines and water wells. Indications of underground water, gas, power, communication, storm drain, and sewer lines were observed in the roadways adjacent to the project site. Additional underground utilities may also be present near or within the project site. Overhead power lines were also observed extending in a roughly north and south direction through the central portion of the site. The existing topography of the site is relatively flat with a grade raised approximately 6 inches above the adjacent roadways. The location of the proposed project site is shown on Figure 1.

## 5 GEOLOGY

Based on our field observations, subsurface exploration, and review of referenced geologic and soils data, the project site is underlain by relatively shallow fill, which is in turn underlain primarily by Quaternary-age alluvium (native soil). Ninyo & Moore's findings regarding the geologic setting and potential geologic hazards at the project site are provided in the following sections.

### 5.1 Geologic Setting

The project site is located in the central portion of Las Vegas Valley, which lies in the southwestern portion of the Great Basin, within the Basin and Range physiographic province. Las Vegas Valley is a naturally formed structural basin as a result of block faulting, a fundamental characteristic of the Basin and Range physiographic province.

Las Vegas Valley extends in a northwest-southeast direction and drains generally toward the southeast through Las Vegas Wash into Lake Mead. Bordering the alluvium-filled valley are relatively steep mountain ranges, including the Spring Mountains to the west; the Desert, Sheep, and Las Vegas ranges to the north; the McCullough Range to the south; and Sunrise Mountain, Frenchman Mountain, and River Mountains to the east.

Las Vegas Valley is underlain at depth by Proterozoic-age igneous and metamorphic basement rock, which is overlain by thick layers of Paleozoic- and Mesozoic-age sedimentary rock, and Tertiary-age volcanic rock. The lower lying areas of Las Vegas Valley generally contain relatively fine-grained alluvial, Aeolian, and playa deposits. Extending outward into the valley from the bordering mountain fronts, are sloping alluvial aprons, or fans, comprised primarily of poorly sorted gravel and sand deposits with cobbles and boulders. The soils are up to approximately 5,000 feet thick in some areas of the valley.

### 5.2 Geologic Hazards

Ninyo & Moore's geotechnical study included an evaluation of the possible presence of geologic hazards, such as faults and ground fissures, in the project area. This evaluation included visual observation of the site for indications of adverse geologic features and review of published geologic and soils maps and literature, and other data listed in the References section of this report. Referenced geologic data were also reviewed to evaluate seismic activity levels, and associated potential earthquake hazards, for faults in the site vicinity. It should be noted that the fault seismic activity levels provided in this section were obtained/interpreted primarily from United States Geological Survey (USGS, 2021) data.

Based on our field observations and review of referenced data, no faults traverse the project site. Review of referenced geologic data indicates that the nearest active fault (i.e., a fault that has experienced ground surface rupture within the past 15,000 years) to the site is the Black Hills fault. The Eglington fault and Frenchman Mountain fault, which are considered potentially active (i.e., faults that have experienced ground surface rupture within the past 130,000 years), are also located in the site vicinity. The distances from the site to these faults are provided on Table 1.

Review of referenced geologic data also indicates that the site is located near an unnamed fault. The distance from the site to this fault is provided in Table 1. Referenced data indicate that this fault is of uncertain origin and that its seismic activity level has not been established. Further, there is some controversy among geologists as to the origin of this geologic feature, and other similar features in southern Nevada, which have been previously referred to as “compaction faults.” Differing proposed origins for these faults include:

- Differential consolidation or compaction over time of the thick alluvial and lakebed sediments in valley areas.
- Tectonic factors associated with faults that may extend into the basement bedrock beneath the valley sediment.
- A combination of differential consolidation and tectonic factors.

<b>Fault Name</b>	<b>Seismic Activity Level *</b>	<b>Approximate Distance From Project Site to Fault</b>
Black Hills fault	Active	19.3 miles
Frenchman Mountain fault	Potential Active	7.4 miles
Eglington fault	Potential Active	6.0 miles
Unnamed Las Vegas Valley fault	Not Established	1.4 miles

**Note:** \*From United States Geological Survey (USGS, 2021) data.

Ground fissures, generally believed to be caused by erosion and differential stress resulting from regional subsidence due primarily to withdrawal of groundwater, are known to occur near faults in southern Nevada. Review of referenced geologic data does not indicate the presence of ground fissures at the project site and no ground fissures were observed during our field activities. However, it should be noted that the ground surface had been disturbed/obscured by previous development at the site.

As part of this study, Ninyo & Moore evaluated whether the project site is located in a Special Geotechnical Considerations Area, shown on the referenced Clark county Soil Guidelines Map (CCDB, 1998). This map indicates important aspects of near-surface soils and geologic features in Las Vegas Valley. Review of the Clark County Soil Guidelines Map indicates that the project

site is located in an area characterized as **Standard Geotechnical Consideration Area - Mixed alluvial sand and gravel**. This indicates that the site is in an area of mixed fine and coarse-grained soils. However, the site is mapped approximately 1 mile east and 1-mile west of areas characterized as **Special Geotechnical Consideration Area - Subsidence and 2,000 - Foot Compaction or Seismic Fault Buffer Zone (Includes 90 Percent of Mapped Fissures)** due to the proximity of a nearby unnamed Las Vegas fault. Although 90 percent of mapped fissures occur within 2,000 feet of mapped subsidence-related faults, not all mapped faults are associated with mapped fissure zones. The nearest mapped fissure zone is located approximately 1 mile east of the site (dePolo and Bell, 2000), and fissure hazards are considered remote for the site.

Ninyo & Moore reviewed the referenced Clark County Expansive Soil Guidelines Map (GISMO, 2021). This map shows areas of the Las Vegas Valley where previous geotechnical studies have indicated the presence of low, moderate, high, and critical expansion potential. Based on review of this map, the subject site is located in an area with prone to critically expansive soil.

### 5.3 Ground Motions

Ninyo & Moore performed a refraction microtremor (ReMi) survey to obtain the shear wave velocity profile to a nominal depth of approximately 100 feet at the subject site to evaluate the Seismic Site Class in general accordance with the 2018 International Building Code (ICC, 2018). The approximate location of the ReMi survey is shown on Figure 2, and additional information regarding the ReMi survey is provided in Appendix D. The results of the ReMi survey indicate a calculated average shear wave velocity of 1,357 feet per second. Based on this information, the findings of our subsurface exploration program, and the 2018 International Building Code, seismic Site Class C is appropriate for design of this project.

Using the referenced United States Geological Survey database (USGS, 2021), estimated maximum considered earthquake spectral response acceleration for short (0.2 second) and long (1.0 second) periods were obtained for the project site, which is located at approximately 36.166318 degrees north latitude and -115.149058 degrees west longitude. Based on the referenced International Building code (ICC, 2018), the parameters in the following table are characteristic of the site for design purposes.

**Table 2 – Seismic Design Parameters**

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	C
Risk Category	II
Site Coefficient, $F_a$	1.268
Site Coefficient, $F_v$	1.500
Mapped Spectral Response Acceleration at 0.2-second Period, $S_s$	0.581g
Mapped Spectral Response Acceleration at 1.0-second Period, $S_1$	0.191g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, $S_{MS}$	0.737g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, $S_{M1}$	0.287g
Design Spectral Response Acceleration at 0.2-second Period, $S_{DS}$	0.491g
Design Spectral Response Acceleration at 1.0-second Period, $S_{D1}$	0.191g
Site Amplification Factor, $F_{PGA}$	1.2
Mapped Peak Ground Acceleration, PGA	0.257g
Site-Adjusted Peak Ground Acceleration, $PGA_M$	0.308g

## 5.4 Liquefaction Potential

Liquefaction is a phenomenon in which loose, saturated soils lose shear strength under short-term (dynamic) loading conditions. Ground shaking of sufficient duration results in the loss of grain-to-grain contact in potentially liquefiable soils due to a rapid increase in pore water pressure, causing the soil to behave as a fluid for a short period of time. To be potentially liquefiable, a soil is typically cohesionless with a grain-size distribution generally consisting of sand and silt. It is generally loose to medium dense, saturated, and subjected to sufficient magnitude and duration of ground shaking.

Liquefaction hazard generally occurs within the upper 50 feet. Groundwater was encountered at a depth as shallow as approximately 14.7 feet in our exploratory borings at the subject site, which were advanced to depths of up to approximately 76.5 feet. Significant layers of primarily fine-grained soils and a few layers of medium dense to very dense coarse-grained soils were encountered in our explorations performed at the project site. In addition, slightly cemented soils and layers of moderately hard to very hard, moderately to strongly cemented soils (caliche) were encountered in our borings. Accordingly, based on the screening analysis provided in Section O103.1.1 of the referenced Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018), liquefaction at the subject site is considered to be low.

## 6 FIELD EXPLORATION AND SUBSURFACE CONDITIONS

Ninyo & Moore's subsurface exploration at the project site was performed on November 15 through November 19, 2021. This exploration consisted of drilling, logging, and sampling of eleven small-diameter exploration soil borings (B-1 through B-11). The borings were advanced to depths ranging from 15.1 to 76.5 feet with a truck-mounted CME 85 drill rig utilizing 8-inch diameter hollow stem augers and mud-rotary techniques. The borings were logged by Ninyo & Moore personnel who meet the requirements of Section 1803.6.5 of the Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018). The purpose of the borings was to evaluate subsurface conditions at the subject site, as well as to collect bulk and relatively undisturbed soil samples for laboratory testing. The elevations of the borings based on Mean Sea Level (MSL) were estimated from Google Earth (Google Earth Website, 2021). Accordingly, the boring elevations recorded on the boring logs in Appendix A should be considered approximate. The approximate locations of the borings are shown on Figure 2.

Laboratory tests were performed on representative soil samples collected from the borings to evaluate moisture content and density, gradation, plasticity, consolidation, swell potential, pH, reduction/oxidation potential, sulfide content, soluble chloride content, soluble sodium sulfate content, sulfate content, sodium content, and solubility potential (total soluble salts). The laboratory test results and descriptions of testing procedures utilized are presented in Appendix B and Appendix C.

### 6.1 Subsurface Soil Encountered

Generalized descriptions of the subsurface soils (fill and native soil) encountered in the borings are provided in the following sections.

#### 6.1.1 Fill

Fill material (primarily aggregate base), ranging from 1.0 to 3.2 feet thick, was encountered in our exploratory borings. This material was comprised primarily of dense, well-graded and silty gravel with sand, and dense, silty sand with gravel. Some of the encountered fill material was overlain by asphalt concrete pavement approximately 1-¾ to 2 inches thick.

#### 6.1.2 Native Soil

Native soil was encountered beneath the noted fill and extended to the total depths of our exploratory borings (up to approximately 76.5 feet). The alluvium consisted primarily of stiff to very stiff, lean and fat clay with varying amounts of sand and gravel; medium dense to dense, silty and clayey sand with varying amounts of gravel; and a few layers of dense, clayey

gravel and poorly graded sand with silt. These native soils were generally moist to wet, and some layers were slightly cemented.

Layers of moderately hard to very hard, moderately to strongly cemented soil (caliche) were encountered in the exploratory borings. In addition, relatively thin (up to a few inches thick) moderately hard to hard caliche layers, and slightly cemented soils were encountered intermittently in our borings, as noted on the boring logs in Appendix A. Caliche is a naturally occurring cemented soil with rock-like characteristics. The following describes typical properties of caliche encountered in southern Nevada.

- Generally occurs in layers a few inches to several or more feet thick.
- Layers typically vary significantly in thickness, degree of cementation, and hardness over relatively short distances.
- Varies in composition from primarily fine-grained material to primarily coarse-grained material.
- Moderately hard, moderately cemented caliche can generally be gouged with a knife with difficulty and broken with a few hammer blows.
- Hard and very hard, strongly cemented caliche is difficult to scratch with a knife and breaks with difficulty with repeated hammer blows.
- Impedes earthwork operations, including grading and utility line trenching. Rock excavation methods are generally needed.

The following table describes the approximate depth, thickness, hardness, and degree of cementation of caliche layers encountered in the borings.

**Table 3 – Caliche Layers Encountered**

Boring	Approximate Depth to Top of Layer (feet)*	Approximate Thickness of Layer (feet)	Hardness and Degree of Cementation**
B-1	15.0	1.0	Moderately hard to hard, moderately to strongly cemented
B-2	20.0	2.0	Hard, strongly cemented
B-2	35.0	1.5	Moderately hard to hard, moderately to strongly cemented
B-2	44.0	3.0	Hard, strongly cemented
B-3	18.0	5.5	Moderately hard to hard, moderately to strongly cemented
B-4	7.0	2.0	Moderately hard to hard, moderately to strongly cemented
B-4	13.5	2.5	Hard to very hard, strongly cemented
B-4	19.5	1.5	Hard, strongly cemented
B-5	17.0	3.0	Hard, strongly cemented

**Table 3 – Caliche Layers Encountered**

Boring	Approximate Depth to Top of Layer (feet)*	Approximate Thickness of Layer (feet)	Hardness and Degree of Cementation**
B-5	35.8	1.2	Moderately hard to hard, moderately to strongly cemented
B-5	40.0	4.0	Moderately hard, moderately cemented
B-5	50.5	0.1**	Hard, strongly cemented
B-6	7.0	2.0	Hard to very hard, strongly cemented
B-6	13.0	1.0	Moderately hard to hard, moderately to strongly cemented
B-7	7.0	2.0	Moderately hard, moderately cemented
B-7	13.0	2.0	Hard to very hard, strongly cemented
B-7	16.0	3.0	Very hard, strongly cemented
B-8	16	1.5	Moderately hard, moderately cemented
B-10	11.5	1.5	Hard, strongly cemented
B-10	14	1.1**	Very hard, strongly cemented
B-11	7.0	1.0	Hard, strongly cemented
B-11	15.0	0.2**	Moderately hard to hard, moderately to strongly cemented

**Notes:**

\* Depth measured from ground surface adjacent to boring.

\*\* Boring terminated in very hard caliche.

Laboratory tests were performed on representative samples of native soil obtained from the exploratory borings. Results of these tests are summarized in the following table.

**Table 4 – Summary of Laboratory Test Results**

Test Type	Test Results	Remarks
Atterberg Limits		
Liquid Limit	0 to 63	Non-plastic to high plasticity
Plastic Limit	0 to 23	
Plasticity Index	0 to 47	
Swell Potential	0 to 10 percent	Low to high swell potential
Chloride Content	0 to 0.006 percent	Low corrosion potential to buried metal
Sodium Sulfate Content	0.0044 to 0.04 percent	Low chemical heave (salt heave) potential
Sulfate Content	0.068 to 0.92 percent	Low to very severe sulfate exposure to concrete
Sodium Content	0.0014 to 0.013 percent	--
Total Salts (Solubility)	0.092 to 0.98 percent	Low solubility potential
Sulfide Content	<0.5 mg/Kg	--

## 6.2 Hydrocarbon Odor

During drilling, a hydrocarbon-like odor was noted in soil cuttings and samples collected in Boring B-3 at a depth of approximately 3 feet, in Boring B-7 at a depth of approximately 12 feet, and in Boring B-9 at a depth of approximately 2 feet.

## 6.3 Groundwater

Groundwater was encountered in our exploratory borings drilled at the project site. The approximate depths to groundwater measured in the exploratory borings are presented in the following table. Depths to groundwater are also included on the boring logs in Appendix A.

Boring Number	Approximate Depth to Groundwater (feet)
B-1	18.7
B-2	15.5
B-3	24.0
B-4	17.3
B-5	16.0
B-6	21.3
B-7	20.0
B-8	22.5
B-9	14.7

**Note:** \*Measured from top of ground surface adjacent to boring.

Ninyo & Moore’s groundwater measurements reflect conditions at the time of our subsurface exploration and do not preclude local and/or seasonal fluctuations in groundwater levels. Groundwater levels are influenced by seasonal factors, variations in ground surface topography, precipitation, irrigation practices, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. Evaluation of factors associated with groundwater fluctuations was beyond the scope of this study.

## 7 FINDINGS AND CONCLUSIONS

Based on the findings of this study, there are no known geotechnical or geologic conditions that would preclude construction of the proposed project, provided the recommendations presented herein are implemented and appropriate construction practices are followed. Geotechnical design and construction considerations for the proposed project include the following:

- As indicated on the boring logs in Appendix A, a hydrocarbon-like odor was noted in some soil cuttings and samples recovered from three of our borings. We understand that other consultants will assess potential environmental concerns relevant to the project site.

- Significant layers of moderately hard to very hard, moderately to strongly cemented caliche were encountered in our exploratory borings performed at the subject site. Due to its variable nature, additional and shallower layers of caliche may be present in subsurface soils between and beyond our exploration boring locations. Grading, excavations, and other earthwork activities will be impeded due to the presence of these cemented soils. Rock excavation techniques should be anticipated during grading and excavation operations.
- Groundwater was measured at depths as shallow as approximately 14.7 feet in our exploratory borings. In addition, based on our moisture content test results, relatively moist to wet conditions will be likely be encountered at relatively shallow depths (below 5 feet deep) during excavation operations. Therefore, potentially unstable and pumping subgrade conditions should be anticipated in excavation bottoms. In addition, contractors for this project should anticipate that construction dewatering may be needed for the project to aid in stabilizing excavation walls and bottoms.
- Fill material, which is considered undocumented/non-engineered, was encountered to depths of up to approximately 3.2 feet in our exploratory excavations. Deeper areas of fill at the project site should be anticipated. Since undocumented/non-engineered fill is not suitable for support of proposed project improvements, this soil will need to be removed in areas of proposed improvements.
- The findings of our study indicate that some of the upper native soils exhibit high swell potentials. To adequately reduce the potential for future soil-related movement and possible adverse effects on project improvements, we recommend that near-surface native soils below the footings be overexcavated and replaced with adequately placed and compacted structural fill. This recommendation is intended for spread footings and improvements founded in or supported by the upper 5 feet of soil at the site. Overexcavation will not be needed for footings founded below the upper 5 feet of soil at the site (i.e., foundations supporting basements or below-grade levels).
- The findings of our study indicate that tested fill and native soil samples generally are suitable for re-use as structural fill and backfill. However, some high expansion potential soils were encountered. Additional soil sampling and laboratory testing should be performed during earthwork operations to evaluate whether on-site soils meet recommendations provided in this report for use as structural fill and backfill.
- Significant layers of primarily fine-grained soils and a few layers of medium dense to very dense coarse-grained soils were encountered in our explorations performed at the project site. In addition, slightly cemented soils and layers of moderately hard to very hard, moderately to strongly cemented soils (caliche) were encountered in our borings. Therefore, it is our opinion that there is a low potential for liquefaction of subsurface soils at the site.
- Review of published geologic data and our field observations do not indicate the presence of adverse on-site geologic hazards, such as faults and ground fissures, which may affect proposed site development.
- In accordance with the referenced International Building code, the seismic parameters provided in Table 2 in Section 5.3 are characteristic of the site and may be used in design of the proposed structures.

## 8 RECOMMENDATIONS

The following sections provide geotechnical recommendations for design and construction of proposed project improvements.

### 8.1 Earthwork

The following subsections provide recommendations for earthwork, including demolition, site grading, caliche considerations, subgrade stabilization, structural fill and backfill, import soil, and temporary excavations.

#### 8.1.1 Demolition

We understand that the subject project will include demolition of existing improvements, including the existing building and associated foundations, concrete flatwork, asphalt pavement areas, and some parts of landscaping. Remnants from demolished structures and improvements should be removed from the site. The contractor should take adequate precautions during demolition or any earthwork activities at the site to reduce the potential for damage to any known or undocumented utilities at the site. Existing utilities should be located, marked, and removed from structural areas or properly abandoned prior to demolition/earthwork operations. The project's geotechnical consultant should observe demolition activities to evaluate if demolished structural materials and utilities are adequately removed, and that resulting excavation are adequately backfilled, as described in the following sections.

#### 8.1.2 Site Grading

Prior to grading, proposed structure and improvement areas should be cleared of any surface obstructions, debris, organics (including lawn, shrubs, trees, and tree roots), and other deleterious material. Materials generated from demolition and clearing operations should be removed from the project site for disposal (e.g. at a legal landfill site).

The full depth of any existing undocumented fill and any loose and/or disturbed native soils should be removed from areas of planned new structures and improvements. Any obstructions that extend below finished grade should be removed and the resulting excavations backfilled with structural fill placed and compacted as described in this report. Saw cutting of existing pavement should provide relatively flat, vertical interfaces for adjacent new pavement sections.

Our laboratory test results indicate that some of the native soils encountered in our borings have high swell potentials. In addition, review of the Clark County Expansive Soil Guidelines map indicates that the subject site is located in an area prone to critically expansive soil. Near-surface native soils will not be suitable in their present condition for support of the proposed structures. Accordingly, for structures and improvements founded in or supported by the upper 5 feet of soil at the site, we recommend that near-surface native soils below the foundations be overexcavated and replaced with structural fill. Overexcavation will not be needed for structures founded below the upper 5 feet of soil at the site (i.e., foundations supporting basements or below-grade levels). The following table summarizes recommended overexcavation depths needed to provide an adequate layer of structural fill beneath proposed project improvements.

<b>Proposed Improvement</b>	<b>Recommended Overexcavation Depth**</b>
Building Foundations	24 inches below foundation bottom elevation.
Concrete Slab-on-Grade Floors	18 inches below supportive gravel (Type II Aggregate Base).
Screen/Retaining Wall Foundations	18 inches below foundation bottom elevation.
Exterior Concrete Flatwork and Paved Parking and Access Areas	12 inches below supportive gravel (Type II Aggregate Base).

**Notes:**  
 \* Overexcavation recommendations provided in this table are applicable to structures and improvement founded in or supported by the upper 5 feet of soil at the site.  
 \*\*The overexcavation depth may include approximately 6 inches of scarified, moisture-conditioned, and compacted native soil at the bottom. Overexcavation and/or scarification may be terminated where caliche is encountered.

After the removals described above have been made, the exposed native soils should be scarified to approximately 6 inches, moisture-conditioned to approximately optimum moisture content, and compacted to 90 percent or more relative compaction, as evaluated by American Society for Testing and Materials (ASTM) Standard D 1557. Scarification may terminate where caliche is encountered, as evaluated in the field by the geotechnical consultant. The project's geotechnical consultant should observe excavations bottoms and areas to receive fill at the time of grading to assess the suitability of the exposed material and to evaluate if removals down to more competent soils are needed.

Where practicable, overexcavation and surface preparations should extend 5 feet or more beyond the exterior edges of planned structure foundations and 2 feet or more beyond planned exterior concrete flatwork, pavement areas, and retaining/screen walls.

Based on the recommended depths of overexcavations and density/consistency of the existing native soils at the site, some shrinkage should be anticipated when these soils are overexcavated, processed, and compacted. For planning purposes, an estimated shrinkage factor of up to approximately 20 percent may be used for soils.

### 8.1.3 Caliche Considerations

Layers of moderately hard to very hard, moderately to strongly cemented soil (caliche) were encountered in our exploratory borings. Due to its variable nature, additional and shallower layers of caliche may be present in subsurface soils between and beyond our explorations at the project site.

Rock excavation techniques such as use of heavy-duty ripping equipment, heavy duty backhoe, headache ball, hoe-ram, and/or rock saw should be anticipated. The contractor should be aware of the potential for vibrational damage to adjacent or nearby structures, and take appropriate precautions, when using heavy impact equipment during removal of caliche.

Oversize materials (particles greater than approximately 6 inches nominal size), including cobble- and boulder-size chunks of caliche, will likely be generated during excavation of any cemented soils encountered at the subject site. These oversize materials will need to be screened out or broken down/crushed prior to utilization as structural fill and backfill, or exported from the project site. Bulking of this material should be anticipated when it is excavated, processed/crushed, and compacted. For planning purposes, approximately 10 percent bulking should be anticipated.

Due to the potential for damaging differential settlement, structure footings should not bear on both caliche and non-cemented or slightly cemented soils. If both cemented and non-cemented/slightly-cemented soils are present at the footing base, as evaluated by the geotechnical consultant, the cemented soil should be overexcavated approximately 12 inches and replaced with structural fill.

### 8.1.4 Subgrade Stabilization

As previously indicated, groundwater was measured at depths as shallow as approximately 14.7 feet in our exploratory borings. In addition, relatively high moisture contents and moist conditions were also encountered in our exploratory borings at relatively shallow depths. Accordingly, pumping subgrade should be anticipated during excavations and earthwork operations. Subgrade stabilization will be needed where pumping subgrade conditions are encountered.

Stabilization methods should be provided by the grading contractor, as needed, and may include overexcavation and replacement of the unsuitable subgrade material, or the use of a geogrid, such as Tensar TX160, or a woven geotextile fabric, such as Mirafi 600X, placed on unstable subgrade and overlain by 12 inches of crushed rock in accordance with Section 704.03.06 of the referenced USSPWC or Type II Aggregate Base (USSPWC 704.03.04). Pushing oversized angular rock, up to approximately 6 inches in nominal diameter, into exposed unstable subgrade soils may also be an appropriate stabilization alternative. The volume of rock needed will vary based upon factors including the moisture content, soil type, depth to groundwater, and total affected area. Placement of angular rock should continue until the area exhibits a relatively non-yielding behavior as observed or tested by the geotechnical consultant.

If conditions (e.g. excavations extending below groundwater) are observed that indicate additional stabilization efforts may be needed, a combination of overexcavation, rock fill, and geogrid placement should be considered. Dewatering and use of relatively light or tracked equipment may also be needed. The geotechnical consultant/engineer during construction should evaluate proposed subgrade stabilization methods prior to their implementation.

### **8.1.5 Construction Dewatering**

Groundwater was encountered at relatively shallow depths in our exploratory borings. The depths of measured groundwater below the existing ground surface are provided on Table 5. In addition, relatively high moisture contents were also encountered in our exploratory borings at relatively shallow depths. Accordingly, depending on depths of project excavations, dewatering may be needed during excavation and earthwork operations. The purpose of dewatering is to improve excavation wall and bottom stability, as well as subgrade stability, and to allow installation of subsurface structures and improvements. Dewatering measures may include installation of well points, deep wells, and other devices. Disposal of groundwater should be performed in accordance with guidelines of the Nevada Division of Environmental Protection (NDEP), which will likely require a permit.

Existing structures within the limits of groundwater drawdown resulting from dewatering may be at risk of experiencing settlement. The amount of settlement, if it occurs, will depend primarily on the amount and duration of the dewatering and subsurface soil conditions. Consideration should be given to monitoring nearby structures for possible movement and associated damage during dewatering operations. If significant movement/damage occurs, dewatering operations should be temporarily suspended and the project's geotechnical consultant/owner's representative should be informed. Recommendations for mitigating

settlement and associated distress should be provided by the geotechnical consultant/owner's representative during construction.

### **8.1.6 Structural Fill and Backfill**

Based on our review of the Clark County Expansive Soil Guidelines map the soils in the area of the subject site are prone to critical expansion. These soils will not be suitable in their present condition for use as structural fill and backfill for the subject project. Unsuitable soils will need to be processed prior to use as fill/backfill, or exported from the project site. Additional soil sampling and laboratory testing should be performed on representative samples during earthwork operations to evaluate whether on-site soils meet recommendations provided in this section for use as structural fill/backfill.

Structural fill and backfill soils should not contain significant amounts of organic matter, debris, other deleterious matter, or rocks or hard chunks larger than approximately 4 inches nominal diameter. These soils should have a low solubility potential of 1.5 percent or less (as evaluated by Technical Guideline, TG 19-2007 (CCDB, 2007), and a low to moderate swell potential (less than 6 percent), as evaluated by the 60-psf swell test prescribed in the Southern Nevada Amendments to the International Building Code (SNBO, 2018).

Soils used as structural fill and backfill should be moisture-conditioned to approximately optimum moisture content and placed and compacted in uniform horizontal lifts to a relative compaction of at least 90 percent (95 percent below pavement sections), as evaluated by the ASTM D 1557. The optimal lift thickness of fill will depend on the type of soil and compaction equipment used, but should generally not exceed approximately 8 inches in loose thickness. Placement, preparation, and compaction of structural fill should be performed in general accordance with the recommendations/ requirements in the referenced 2018 International Building Code (ICC, 2018), and/or the Southern Nevada Amendments to 2018 International Building Code (SNBO, 2018).

Earthwork operations should be observed and compaction of structural fill and backfill materials should be tested by the project's geotechnical consultant. Typically, one field test should be performed per lift for each approximately 500 cubic yards of fill placement in structural areas. Additional field tests may also be performed in structural and non-structural areas at the discretion of the geotechnical consultant.

### **8.1.7 Import Soil**

Import soil should consist of coarse-grained material (50 percent or more retained on the No. 200 sieve) with 15 or more percent passing the No. 200 sieve and not more than 30 percent larger than  $\frac{3}{4}$  inch, a low solubility potential of 1.5 percent or less (as evaluated by Technical Guideline, TG-19-2007 CCDB, 2007), a low sulfate content (less than 0.2 percent), and a low to low moderate swell potential (less than 6 percent), as evaluated by the 60-psf swell test prescribed in the Southern Nevada Amendments to the International Building Code (SNBO, 2018). Import soil should not contain significant amounts of organic matter, debris, other deleterious matter, or rocks or hard chunks larger than approximately 4 inches nominal diameter. We further recommend that proposed import material be evaluated by the project's geotechnical consultant at the borrow source for its suitability prior to importation to the project site. Import soil should be moisture-conditioned and placed and compacted in accordance with the recommendations set forth in the previous section.

### **8.1.8 Temporary Excavations**

Temporary slope surfaces should be kept moist to retard raveling and sloughing. Water should not be allowed to flow over the top of excavations in an uncontrolled manner. Stockpiled material and/or equipment should be kept back from the top of excavations a distance equivalent to the depth of the excavation or more. Workers should be protected from falling debris, sloughing, and raveling in accordance with Occupational Safety and Health Administration (OSHA) regulations (OSHA, 2021). Temporary excavations should be observed by the project's geotechnical consultant so that appropriate additional recommendations may be provided based on the actual field conditions. Temporary excavations are time sensitive and failures are possible.

## **8.2 Structure Foundations**

### **8.2.1 Conventional Foundations**

Conventional spread foundations should extend 24 inches or more (18 inches for screen and retaining walls) below the lowest adjacent finished grade. For spread footings founded in or supported by the upper 5 feet of soil at the site, we recommend that near-surface native soils below the footings be overexcavated and replaced with adequately placed and compacted structural fill, as indicated in Section 8.2.1. Overexcavation will not be needed for footings founded below the upper 5 feet of soil at the site (i.e., foundations supporting basements or below-grade levels). Conventional spread footings should have a width of 12 inches or more. Footings should be reinforced in accordance with the project structural engineer's recommendations.

An allowable bearing capacity of 1,600 pounds per square foot (psf) may be used for conventional spread footings with an embedment depth of 24 inches below adjacent finished grade and a width of 12 inches. The allowable bearing capacity may be increased by 130 psf for each additional 1 foot of width and 700 psf for each additional 1 foot of embedment up to 3,000 psf. The allowable bearing capacity, which was developed considering a factor of safety of 2.5, may be increased by one-third for short duration loads, such as wind or seismic. Lateral resistance for footings is presented in Section 8.3. Seismic parameters for design of structures at the site are provided in Table 2 in Section 5.3. Foundations should be designed and constructed in accordance with the recommendations of a qualified structural engineer.

Due to the potential for damaging differential settlement, structure footings (including retaining wall footings) should not bear on both caliche and non-cemented or slightly cemented soils. If both cemented and non-cemented/slightly-cemented soils are present at the footing base, as evaluated by the geotechnical consultant, the cemented soil should be overexcavated approximately 12 inches and replaced with structural fill.

Based on our evaluation of spread footing bearing capacity, we anticipate that settlement of foundations will be on the order of 1.5-inches. We estimate footing differential settlement of about ½ - inch over a horizontal span of about 40 feet.

### **8.2.2 Mat Foundations**

Concrete mat foundations may be used to support structures. Mat foundations should extend 24 inches or more below the lowest adjacent finished grade. For mat foundations supported by the upper 5 feet of soil at the site, we recommend that near-surface native soils below the mat foundations be overexcavated and replaced with adequately placed and compacted structural fill, as indicated in Section 8.2.1. Ninyo & Moore recommends that concrete mat foundations for this project be founded on at least 6 inches of Type II Aggregate Base overlying a zone of adequately compacted structural fill, as indicated in Section 8.2.1. Aggregate base underlying concrete mat foundations should be compacted to at least 95 percent of the laboratory maximum dry density (ASTM D 1557). Overexcavation will not be needed for mat foundations founded below the upper 5 feet of soil at the site (i.e., mat foundations supporting basements or below-grade levels). Mat foundations should be designed by the project's structural engineer based on anticipated loading conditions.

### 8.2.2.1 Modulus of Subgrade Reaction

The recommended vertical modulus of subgrade reaction,  $k_{v1}$ , for use in design of flexible mat foundations is 200 pounds per cubic inch (pci) applicable for a 12-inch-square loaded area. For actual foundation sizes, the subgrade modulus should be reduced using the following formula:

$$k_v = k_{v1} \left( \frac{1}{B} \right) \quad \text{Equation 1}$$

Where for a uniformly loaded slab,

$k_v$  = vertical modulus of subgrade reaction for actual foundation width

$k_{v1}$  = vertical modulus of subgrade reaction for 1-foot-square loaded area = 200 pci

B = foundation width in feet

For point loads on a slab, the vertical modulus of subgrade reaction need not be reduced using the formula above for the entire width of the slab but rather some equivalent width which is related to the flexural stiffness of the slab relative to the underlying soil subgrade stiffness and may be estimated using the following formula:

$$B' = 14 \times t < B \quad \text{Equation 2}$$

Where,

B' = equivalent foundation width in feet to be used in Equation 1 for B

t = thickness of slab in feet

## 8.3 Lateral Earth Pressures

Retaining walls that are not restrained from movement at the top and having level, granular backfill behind the wall may be designed using an “active” lateral earth pressure as indicated on Figure 3. Retaining walls that are restrained from movement at the top and having level, granular backfill behind the wall may be designed using an “at-rest” lateral earth pressure as indicated on Figure 4. The value of “q” represents the pressure induced by adjacent light loads, uniform slab, or traffic loads plus any adjacent footing loads. The locations of the resultant forces due to these lateral earth pressures are also provided on Figure 3 and Figure 4. These lateral earth pressure values assume compaction within about 5 feet of the wall will be accomplished with relatively light compaction equipment and that low expansive backfill will be placed behind the wall. These values also assume that retaining walls will have a height of approximately 10 feet or less.

Ninyo & Moore evaluated “active” and “at-rest” dynamic lateral earth pressures due to seismic loading based on the referenced Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018). Ninyo & Moore recommends that retaining walls that are not restrained from movement at the top be designed using an “active” resultant force due to seismic loading as indicated on Figure 3. Retaining walls that are restrained from movement at the top should be designed using an “at-rest” resultant force due to seismic loading as indicated on Figure 4.

Measures should be taken so that hydrostatic pressure does not build up behind retaining walls. Drainage measures, as indicated on Figure 5, should include free-draining granular backfill material and perforated drain pipes, or weepholes lined with polyvinyl chloride (PVC) pipe. Drain pipes should outlet away from structures and retaining walls and should be waterproofed in accordance with the recommendations of a qualified civil engineer or architect.

For passive resistance to lateral loads, we recommend that a passive lateral earth pressure as shown on Figure 3 be used up to a value of 2,500 psf. This value assumes that the ground surface is horizontal for a distance of 10 feet, or three times the height generating the passive pressure, whichever is more. We recommend that the upper 12 inches of soil not protected by pavement or a concrete slab be neglected when calculating passive resistance. For frictional resistance to lateral loads, we recommend that a coefficient of friction of 0.53 be used between soil and soil contacts and/or between soil and cast-against-grade concrete contacts. A coefficient of friction of 0.35 may be used between soil and formed concrete contacts. Passive and frictional resistance may be used in combination, provided the passive resistance does not exceed on-half of the total allowable resistance.

#### 8.4 Concrete Slab-On-Grade Floors

Concrete slab-on-grade floors should be designed by the project’s structural engineer based on anticipated loading conditions. Ninyo & Moore recommends that conventional concrete slab-on-grade floors for this project be founded on 8 inches of Type II Aggregate Base overlying a zone of adequately placed and compacted structural fill, as described in Table 6, Section 8.1.2 of this report. The structural fill thickness may include 6 inches of scarified and recompacted soils. Aggregate base underlying concrete slab-on-grade floors should be compacted to 90 percent or more of the laboratory maximum dry density (ASTM D 1557).

Floor slabs should be 4 inches or more in thickness and reinforced with No. 3 steel reinforcing bars placed at 18 inches on-center both ways. Reinforcement of the slab should be placed at mid-height. We recommend that “chairs” be utilized to aid in the placement of the reinforcement. Increased slab thickness and reinforcement may be recommended by the structural engineer. As a means to reduce shrinkage cracks, we recommend that conventional slab-on-grade floors be provided with control joints in accordance with the recommendations of a qualified structural engineer. Recommendations regarding concrete utilized in construction of floor slabs are provided in a subsequent section of this report.

Ninyo & Moore recommends that a moisture barrier be provided by a membrane placed beneath concrete slab-on-grade floors, particularly in areas where moisture-sensitive flooring is to be used. The membrane should consist of visqueen 10 mils in thickness, or an appropriate equivalent. The visqueen should overlie the previously described compacted base material. Due to the relatively shallow groundwater at the site and planned half to full basement, we recommend that consideration be given to use of a more robust vapor barrier below concrete slabs-on-grade, such as Stego Wrap.

## 8.5 Exterior Concrete Flatwork and Curbs and Gutters

Exterior concrete flatwork, such as walkways and larger slabs, should be founded on 6 inches of Type II Aggregate Base overlying a zone of adequately placed and compacted structural fill, as described in Table 6, Section 8.1.2 of this report. The structural fill thickness may include 6 inches of scarified and recompacted soils. Type II Aggregate Base should be compacted to 90 percent or more relative compaction, as evaluated by ASTM D 1557.

Concrete flatwork should be 4 inches thick. To reduce the potential for shrinkage cracks, the flatwork should be constructed with control joints spaced approximately 5 feet apart for walkways and approximately 10 feet on-center each way for larger slabs. Crack control joint spacing should be in accordance with recommendations of a qualified structural engineer. Reduced joint spacing may be recommended by the structural engineer.

Formation of shrinkage cracks in concrete slabs, and other cracks due to minor soil movement, may be further reduced by utilizing steel reinforcement, such as welded wire mesh. However, due to the inherent difficulty in positioning welded wire mesh in the middle of concrete flatwork, other crack control methods should be considered, such as placement in the concrete of No. 3 steel reinforcing bars at approximately 24 inches on-center each way. Reinforcement of the flatwork should be placed at approximately mid-height in the concrete utilizing “chairs.”

Exterior concrete flatwork, curbs, and gutters should be constructed in accordance with the recommendations of the project's civil or structural engineer and governing agency requirements. Recommendations regarding concrete utilized in construction of proposed improvements are provided in Section 8.7.

## 8.6 Pavement Sections

The following subsections provide recommendations for on-site asphalt concrete (AC) and Portland cement concrete (PCC) pavements.

### 8.6.1 Pavement for On-Site Parking and Access Areas

To form a basis for design of flexible pavement for on-site paved parking and access areas, we have assumed the following parameters:

- A design Equivalent Single Axial Load (ESAL) value of 3,000, based on Traffic Index (TI) = 4.5 for automobile traffic; an ESAL value of 16,000, based on TI = 5.5 for delivery truck traffic; and an ESAL value of 65,000, based on TI = 6.5 for heavy duty truck and bus traffic areas are applicable.
- A reliability of 80 percent.
- A standard deviation of 0.45.
- An initial serviceability index of 4.2.
- A terminal serviceability index of 2.5.
- A subgrade resilient modulus ( $M_R$ ) of 4,100 pounds per square inch (psi) for an R-value of 15 (based on soil classification).

Using these values, structural numbers associated with the proposed parking and access areas were calculated using design procedures in accordance with the American Association of State Highway and Transportation Officials method of designing flexible pavement (AASHTO, 1993) requirements. The following table presents recommended structural pavement sections placed over structural fill for on-site parking and access areas.

Traffic Type	Design ESAL	Pavement ( $a_{\text{asphalt}} = 0.35$ )	Base ( $a_{\text{base}} = 0.12$ )	Subgrade	Structural Number Provided	Structural Number Needed
		Asphalt Concrete Thickness (Inches)	Type II Base Thickness (Inches)	Structural Fill Thickness (Inches)*		
Automobile	3,000	2.5	5.5	12.0	1.54	1.52
Delivery Truck	16,000	3.5	7.0	12.0	2.07	2.04
Heavy Duty Truck	65,000	4.5	9.0	12.0	2.66	2.58

**Note:**  
\* Structural fill below pavement sections may include 6 inches of scarified and recompacted native soil. Scarification may terminate where caliche is encountered, as evaluated in the field by the geotechnical consultant.

If the assumed traffic or design ESAL values are not considered appropriate, this office should be notified. In providing these recommendations for pavement sections, we have assumed that asphalt concrete will be mixed and placed in accordance with Section 401 of the referenced Uniform Standard Specifications (RTC, 2021b). We have also assumed that Type II Aggregate Base will conform to Section 704.03.04 of the referenced Uniform Standard Specifications (RTC, 2021b). Type II Aggregate Base materials should be placed and compacted to 95 percent or more relative compaction, as evaluated by ASTM D 1557, and in accordance with Section 302 of the referenced Uniform Standard Specifications (RTC, 2021b).

### **8.6.2 Portland Cement Concrete Pavement**

Ninyo & Moore recommends that Portland cement concrete pavement be utilized in trash dumpster and other heavy traffic areas. Our experience indicates that refuse truck traffic and other heavy traffic can significantly shorten the useful life of asphalt concrete pavement. We recommend that, in dumpster approach and other heavy traffic areas, 650 pounds per square inch (psi) flexural strength Portland cement concrete, 6 inches thick, be placed over 8 inches of compacted Type II Aggregate Base over 12 inches of adequately placed and compacted structural fill. We also recommend that a qualified structural engineer be consulted for appropriate reinforcement of concrete pavement.

### **8.6.3 Pavement Considerations**

We recommend that mix designs be made for the asphalt concrete and Portland cement concrete by an engineering company specializing in this type of work. In addition, paving operations should be observed and tested by a qualified testing laboratory.

Adequate surface drainage should be provided to reduce the potential for ponding and infiltration of water into the pavement and subgrade materials. We suggest that the paved areas have a surface gradient of 1 percent or more. In addition, surface runoff from surrounding areas should be intercepted, collected, and not permitted to flow onto the pavement or infiltrate the base and subgrade. We recommend that perimeter swales, edge drains, curbs and gutters, or combination of these drainage devices be constructed to reduce the adverse effects of surface water runoff.

## 8.7 Concrete and Corrosion Considerations

The corrosion potential of on-site soils to concrete was evaluated in the laboratory using representative samples obtained from the exploratory borings. Laboratory testing was performed to assess the effects of sulfate content on concrete. Results of these tests are presented in Appendix C. Recommendations regarding concrete to be utilized in construction of proposed improvements and for buried metal pipes are provided in the following sections.

### 8.7.1 Concrete

Chemical tests performed on selected samples of on-site soils indicated sulfate contents of 0.068 to 0.92 percent by weight. Based on review of the referenced International Building Code (ICC, 2018) and American Concrete Institute manual (ACI, 2014), the tested soil is considered to have very severe sulfate exposure to concrete. Accordingly, we recommend that concrete in contact with on-site soils, along with subsurface walls up to 12 inches above finished grade, contain Type V cement and have a design compressive strength of 4,500 pounds per square inch (psi). Concrete in contact with on-site soils should have a water-cement ratio of 0.45 by weight. In addition, it is recommended that reinforcing bars in cast-against-grade concrete, with the exception of slab-on-grade floors and exterior concrete flatwork, be covered by approximately 3 inches or more of concrete. Concrete should be placed with an approximate 4-inch slump and good densification procedures should be used during placement to reduce the potential for honeycombing. Concrete samples should be obtained, as indicated by ACI manual Section 318 (ACI, 2014), and the slump should be tested at the site by the project's geotechnical consultant. Structural concrete should be placed in accordance with American Concrete Institute (ACI, 2014) and project specifications.

### 8.7.2 Buried Metal Pipes

Ninyo & Moore recommends that corrosion reduction methods be implemented for this project for any buried metal. These corrosion reduction methods may include utilization of protective coatings, pipe sleeving, and/or appropriate cathodic protection as recommended by a qualified corrosion engineer. Where permitted by jurisdictional building codes, the use of plastic pipes for buried utilities should also be considered.

## 8.8 Moisture Infiltration Reduction and Surface Drainage

Infiltration of water into subsurface soils can lead to soil movement and associated distress, and chemically and physically related deterioration of concrete structures. To reduce the potential for infiltration of moisture into subsurface soils at the site, we recommend the following:

- Positive drainage should be established and maintained away from the proposed structures. Positive drainage may be established by providing a surface gradient of 5 percent away from structures for a distance of 10 feet measured perpendicular from structure perimeters, where possible. Impervious surfaces within 10 feet of the structure foundations may be sloped 2 percent or flatter away from the structures.
- Adequate surface drainage should be provided to channel surface water away from on-site structures and to a suitable outlet such as a storm drain or the street. Adequate surface drainage may be enhanced by utilization of graded swales, area drains, and other drainage devices. Surface run-off should not be allowed to pond near structures.
- Building roof drains should have downspouts tightlined to an appropriate outlet, such as a storm drain or the street. If tightlining of the downspouts is not practicable, they should discharge 5 feet or more away from the building or onto concrete flatwork or asphalt that slopes away from the structure. Downspouts should not be allowed to discharge onto the ground surface adjacent to building foundations.
- Ninyo & Moore recommends that low-water use (drip irrigated) landscaping be utilized on site, particularly within 5 feet of the building and exterior site improvements, including areas of concrete flatwork and masonry block walls.
- Irrigation heads should be oriented so that they spray away from buildings and block wall surfaces. Irrigation should be maintained at the lowest level needed for plant growth.

## 9 OBSERVATION AND TESTING

Appropriate observation, testing, and inspection services during earthwork and construction operations should be performed. These services should include evaluation of subgrade conditions where soil removals are performed and in areas to receive fill, observation and testing of concrete and asphalt concrete, and observation of steel reinforcement placement. The consultant should evaluate the depth of removal of undocumented fill, and soft, loose, or otherwise unsuitable soils, as well as observe and test the placement and compaction of structural fill and backfill soils.

### 9.1 Quality Assurance Observation, Testing, and Inspection

A qualified geotechnical consultant should perform appropriate observation, testing and inspection services during grading and construction operations. The geotechnical consultant should also perform observation, testing, and inspection services during placement of concrete, mortar, grout, asphalt concrete, and steel reinforcement. Special inspections should be performed as indicated in Table 1705.6 of the referenced Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018). Based on the results of our laboratory testing and our understanding of the subject project, it is our opinion that the level of special inspection, as indicated in Table 1705.6, should be 4b (continuous).

The recommendations provided in this report are based on the assumption that Ninyo & Moore will provide geotechnical observation, testing, and inspection services during grading and construction. In the event that it is decided not to utilize the services of Ninyo & Moore during construction, we request that the selected consultant provide the client with a letter (with a copy sent to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations, and that they are in full agreement with the design parameters and recommendations contained in this report.

## **10 PLAN REVIEW**

The recommendations presented in this report are based on preliminary design information for the proposed project, as provided by LGA personnel, and on the findings of our geotechnical evaluation. When finished, project plans and specifications should be reviewed by the geotechnical consultant prior to submitting the plans and specifications for bid. Additional field exploration and laboratory testing may be needed upon review of the project design plans.

## **11 PRE-CONSTRUCTION MEETING**

We recommend that a pre-construction meeting be held. The owner or the owner's representative, the civil engineer, the structural engineer, the contractor, and the geotechnical consultant should be in attendance to discuss the plans and the project.

## **12 LIMITATIONS**

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

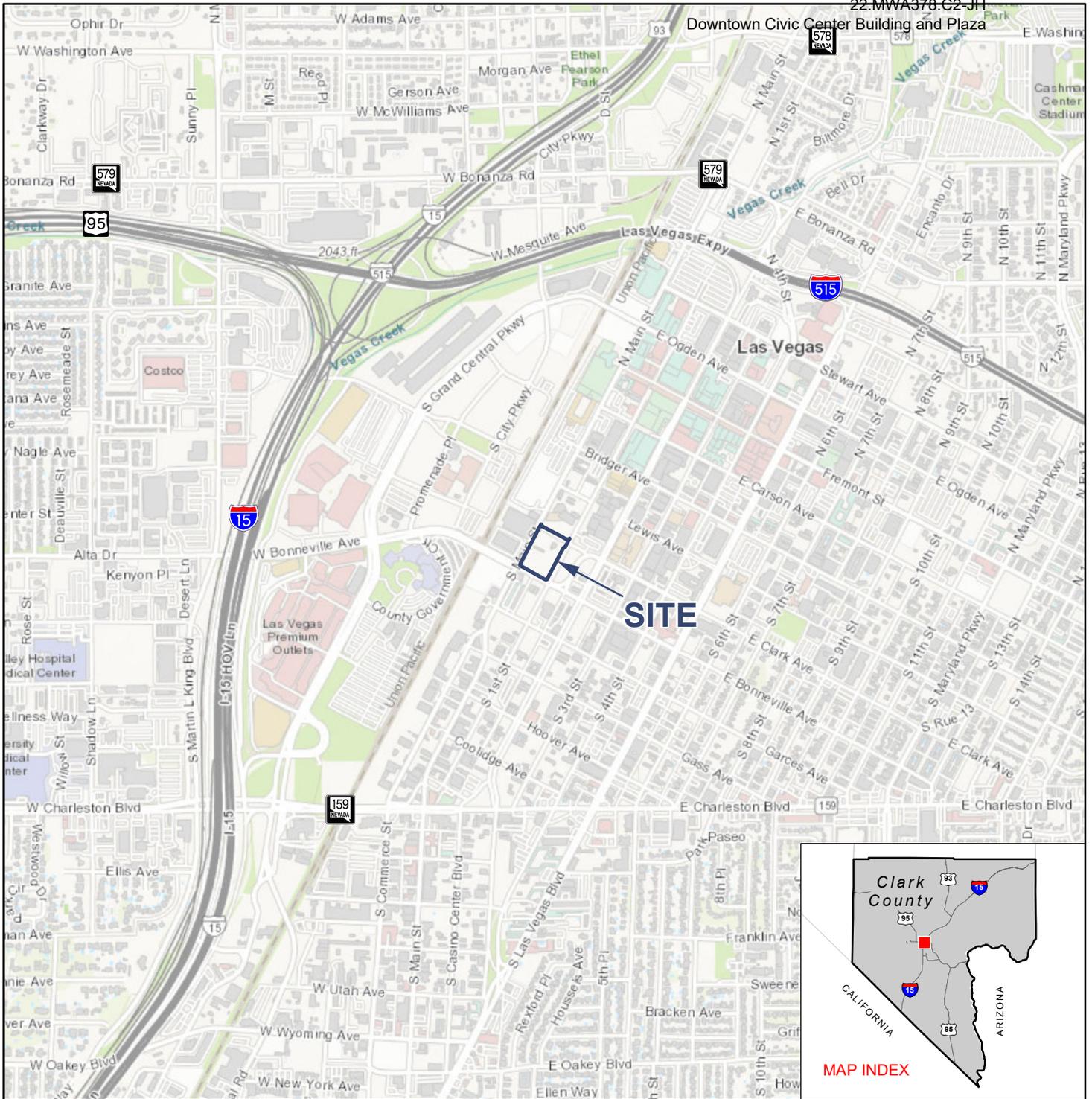
This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

## 13 REFERENCES

- American Association of State Highway and Transportation Officials (AASHTO), 1993, AASHTO Guide for Design of Pavement Structures: Fourth Edition, Volume 1 and Volume 2.
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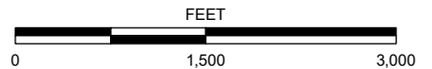


# FIGURES



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NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: ESRI WORLD TOPO, 2021



**FIGURE 1**

**SITE LOCATION**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE  
LAS VEGAS, NEVADA

304840001 | 12/21



LEGEND

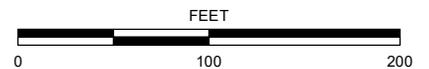
 **B-11** BORING  
 TD=15 TD=TOTAL DEPTH IN FEET

 ReMi SURVEY

 SITE BOUNDARY

 PROPOSED BUILDING

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: GOOGLE EARTH, 2021



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FIGURE 2

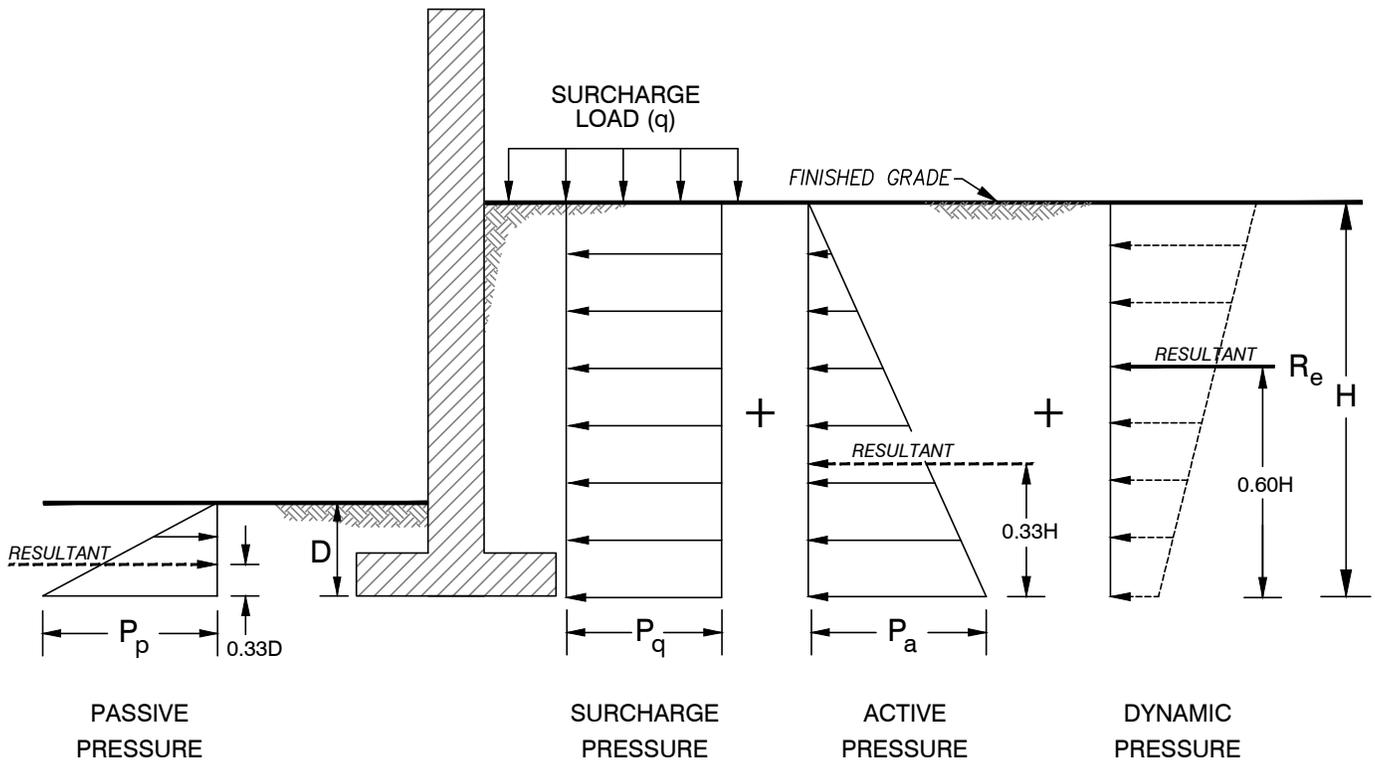
**BORING LOCATIONS**

CIVIC CENTER BUILDING AND PLAZA  
 MAIN STREET AND BONNEVILLE AVENUE  
 LAS VEGAS, NEVADA

304840001 | 12/21



Geotechnical & Environmental Sciences Consultants



NOTES:

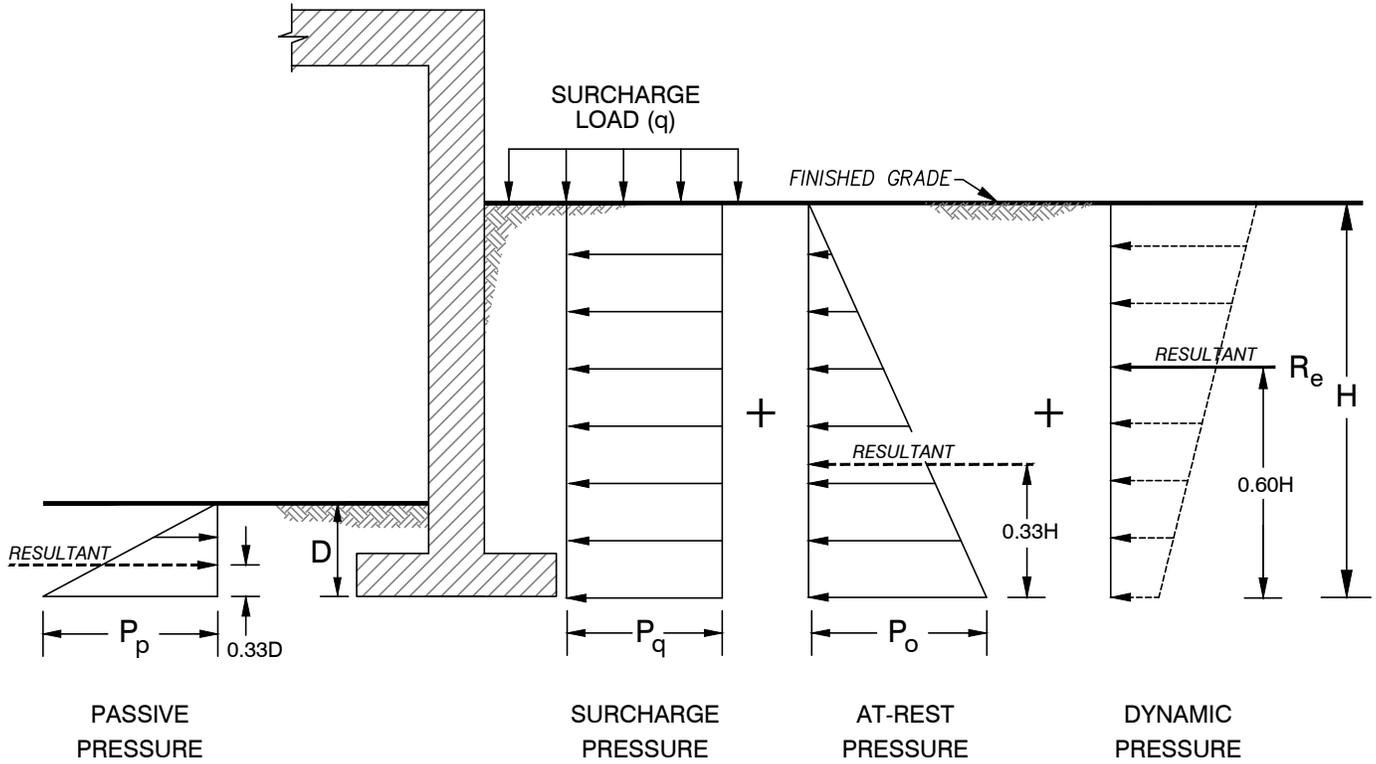
1. ASSUMES NO HYDROSTATIC PRESSURE BUILD-UP BEHIND THE RETAINING WALL
2. ASSUMES LEVEL, GRANULAR BACKFILL MATERIALS
3. DRAINS AS RECOMMENDED IN THE RETAINING WALL DRAINAGE DETAIL SHOULD BE INSTALLED BEHIND THE RETAINING WALL
4. DYNAMIC LATERAL EARTH PRESSURE RESULTANT IS BASED ON THE REFERENCED SOUTHERN NEVADA AMENDMENTS TO THE 2018 IBC (SNBO, 2018)
5. H AND D ARE IN FEET
6. SETBACK SHOULD BE IN ACCORDANCE WITH SECTION 1808.7 OF THE 2018 IBC

RECOMMENDED GEOTECHNICAL DESIGN PARAMETERS

Lateral Earth Pressure	Equivalent Fluid Pressure
$P_p$	<b>300D</b> psf
$P_q$	<b>0.33q</b> psf
$P_a$	<b>37H</b> psf
Resultant	Force Per Unit Width of Wall
$R_e$	<b>9H<sup>2</sup></b>

NOT TO SCALE

FIGURE 3



NOTES:

1. ASSUMES NO HYDROSTATIC PRESSURE BUILD-UP BEHIND THE RETAINING WALL
2. ASSUMES LEVEL, GRANULAR BACKFILL MATERIALS
3. DRAINS AS RECOMMENDED IN THE RETAINING WALL DRAINAGE DETAIL SHOULD BE INSTALLED BEHIND THE RETAINING WALL
4. DYNAMIC LATERAL EARTH PRESSURE RESULTANT IS BASED ON THE REFERENCED SOUTHERN NEVADA AMENDMENTS TO THE 2018 IBC (SNBO, 2018)
5. H AND D ARE IN FEET
6. SETBACK SHOULD BE IN ACCORDANCE WITH SECTION 1808.7 OF THE 2018 IBC

RECOMMENDED GEOTECHNICAL DESIGN PARAMETERS

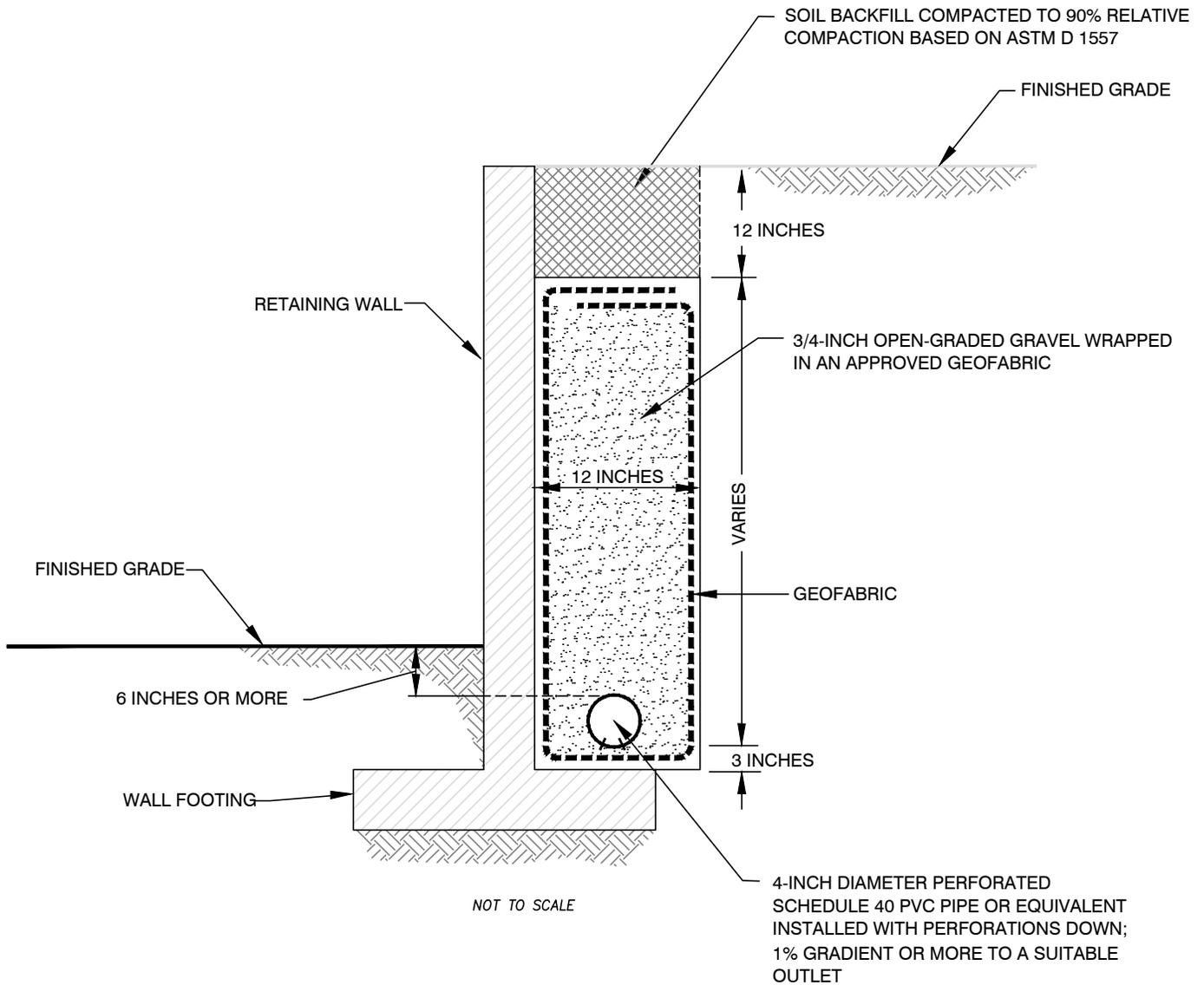
Lateral Earth Pressure	Equivalent Fluid Pressure
$P_p$	<b>300D</b> psf
$P_q$	<b>0.50q</b> psf
$P_o$	<b>55H</b> psf
Resultant	Force Per Unit Width of Wall
$R_e$	<b>23H<sup>2</sup></b>

NOT TO SCALE

FIGURE 4

LATERAL EARTH PRESSURES FOR RESTRAINED RETAINING WALLS

CIVIC CENTER BUILDING AND PLAZA  
 MAIN STREET AND BONNEVILLE AVENUE  
 LAS VEGAS, NEVADA



NOTES: AS AN ALTERNATIVE, AN APPROVED GEOCOMPOSITE DRAIN SYSTEM MAY BE USED.

AS AN ALTERNATIVE TO USE OF 4" DIAMETER PVC BACKDRAINAGE PIPES, WEEP HOLES CAN BE CORED THROUGH THE WALL AND LINED WITH PVC PIPE. WEEP HOLES SHOULD BE 3" DIAMETER AND PLACED APPROXIMATELY 3" ABOVE THE LOWEST ADJACENT FINISHED GRADE AT APPROXIMATELY 10' ON-CENTER.

RETAINING WALL DD D-RW.DWG

**FIGURE 5**

**RETAINING WALL DRAINAGE DETAIL**

CIVIC CENTER BUILDING AND PLAZA  
 MAIN STREET AND BONNEVILLE AVENUE  
 LAS VEGAS, NEVADA

304840001 | 12/21

## APPENDIX A

### EXPLORATORY BORING LOGS

#### **Field Procedure for the Collection of Disturbed Soil Samples**

Disturbed soil samples were obtained in the field from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

#### **The Standard Penetration Test (SPT) Sampler**

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The sampler was driven into the ground with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586 and the blow counts were recorded.

#### **Field Procedure for the Collection of Ring-lined Soil Samples**

Ring-lined soil samples were obtained in the field using a Modified Split Barrel Drive Sampler. The sampler, with an external diameter of 3.0 inches, was lined with 1-inch long, thin brass rings with inside diameters of 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer of thin general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows during driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

# APPENDIX A

## Exploratory Boring Logs

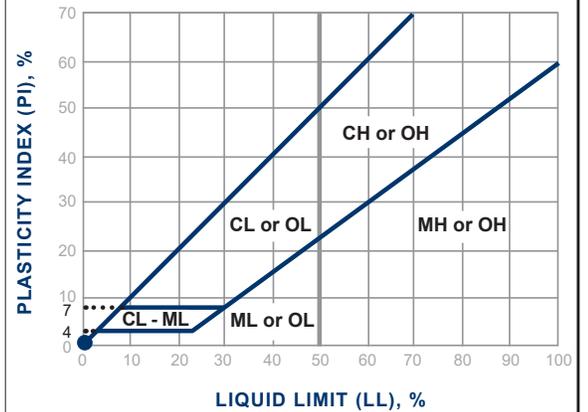
### Soil Classification Chart Per ASTM D 2488

Primary Divisions		Secondary Divisions			
		Group Symbol	Group Name		
<b>COARSE-GRAINED SOILS</b> more than 50% retained on No. 200 sieve	<b>GRAVEL</b> more than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVEL less than 5% fines	GW	well-graded GRAVEL	
			GP	poorly graded GRAVEL	
		GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines	GW-GM	well-graded GRAVEL with silt	
			GP-GM	poorly graded GRAVEL with silt	
			GW-GC	well-graded GRAVEL with clay	
			GP-GC	poorly graded GRAVEL with clay	
			GM	silty GRAVEL	
		GRAVEL with FINES more than 12% fines	GC	clayey GRAVEL	
			GC-GM	silty, clayey GRAVEL	
	SW		well-graded SAND		
	SP		poorly graded SAND		
	<b>SAND</b> 50% or more of coarse fraction passes No. 4 sieve	CLEAN SAND less than 5% fines	SW-SM	well-graded SAND with silt	
			SP-SM	poorly graded SAND with silt	
		SAND with DUAL CLASSIFICATIONS 5% to 12% fines	SW-SC	well-graded SAND with clay	
			SP-SC	poorly graded SAND with clay	
			SM	silty SAND	
		SAND with FINES more than 12% fines	SC	clayey SAND	
			SC-SM	silty, clayey SAND	
<b>SILT and CLAY</b> liquid limit less than 50%			INORGANIC	CL	lean CLAY
				ML	SILT
	CL-ML	silty CLAY			
ORGANIC	OL (PI > 4)	organic CLAY			
	OL (PI < 4)	organic SILT			
<b>SILT and CLAY</b> liquid limit 50% or more	INORGANIC	CH	fat CLAY		
		MH	elastic SILT		
	ORGANIC	OH (plots on or above "A"-line)	organic CLAY		
		OH (plots below "A"-line)	organic SILT		
		PT	Peat		
Highly Organic Soils					

### Grain Size

Description	Sieve Size	Grain Size	Approximate Size
Boulders	> 12"	> 12"	Larger than basketball-sized
Cobbles	3 - 12"	3 - 12"	Fist-sized to basketball-sized
Gravel	Coarse	3/4 - 3"	Thumb-sized to fist-sized
	Fine	#4 - 3/4"	Pea-sized to thumb-sized
Sand	Coarse	#10 - #4	Rock-salt-sized to pea-sized
	Medium	#40 - #10	Sugar-sized to rock-salt-sized
	Fine	#200 - #40	Flour-sized to sugar-sized
Fines	Passing #200	< 0.0029"	Flour-sized and smaller

### Plasticity Chart



### Apparent Density - Coarse-Grained Soil

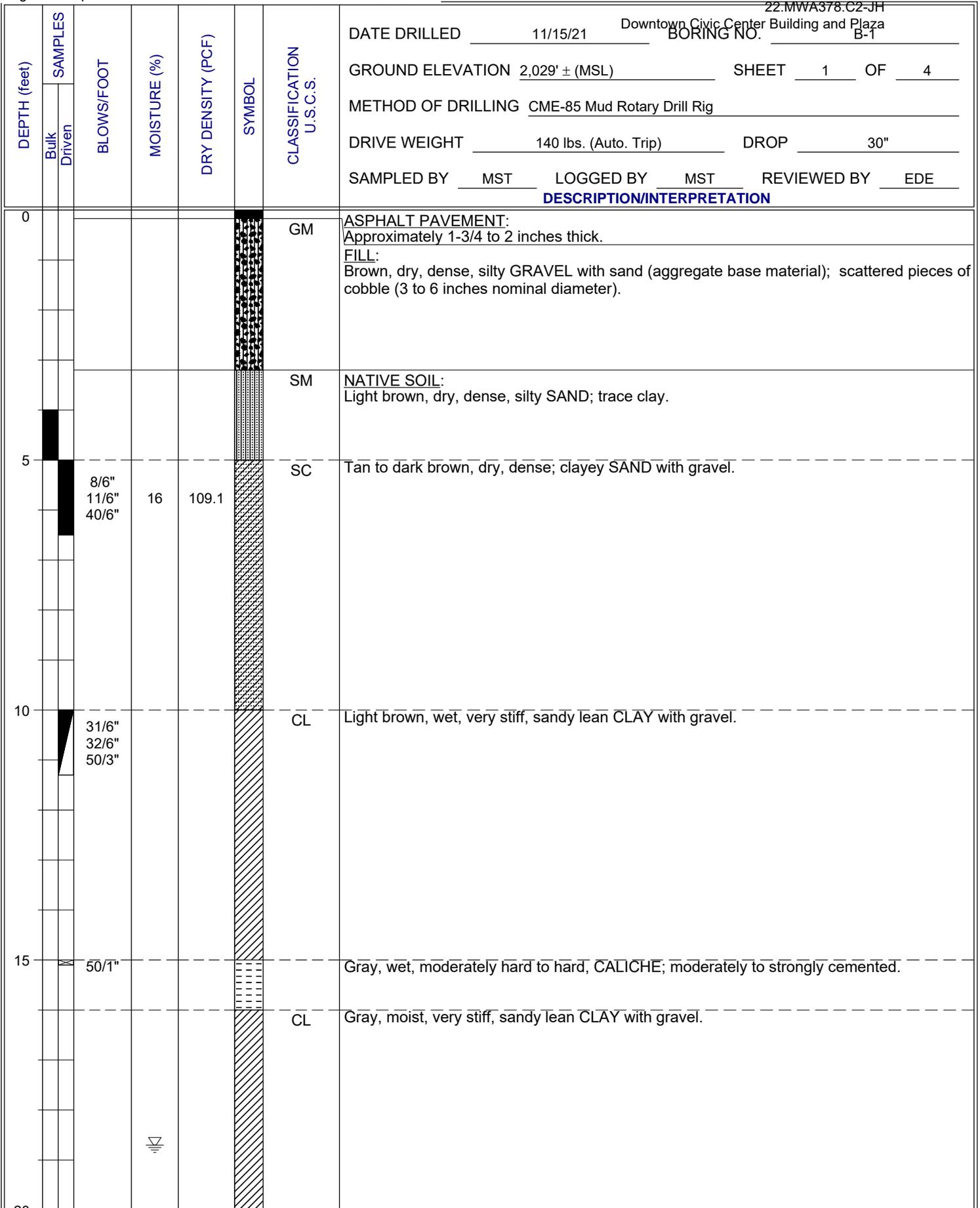
Apparent Density	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5
Loose	5 - 10	9 - 21	4 - 7	6 - 14
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42
Dense	31 - 50	64 - 105	21 - 33	43 - 70
Very Dense	> 50	> 105	> 33	> 70

### Consistency - Fine-Grained Soil

Consistency	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Soft	< 2	< 3	< 1	< 2
Soft	2 - 4	3 - 5	1 - 3	2 - 3
Firm	5 - 8	6 - 10	4 - 5	4 - 6
Stiff	9 - 15	11 - 20	6 - 10	7 - 13
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26
Hard	> 30	> 39	> 20	> 26

# BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
	Bulk	Driven						
0								Bulk sample. Modified split-barrel drive sampler. No recovery with modified split-barrel drive sampler. Sample retained by others. Standard Penetration Test (SPT). No recovery with a SPT. Shelby tube sample. Distance pushed in inches/length of sample recovered in inches. No recovery with Shelby tube sampler. Continuous Push Sample. Seepage. Groundwater encountered during drilling. Groundwater measured after drilling.
5			XX/XX					
10								
15							SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change. Dashed line denotes material change.
							CL	Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
20								The total depth line is a solid line that is drawn at the bottom of the boring.



**FIGURE A- 1**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/15/21	Downtown Civic Center Building and Plaza B-1		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 2 OF 4	
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20		48/6" 50/3"	85.8	65.7		CH	NATIVE SOIL: (Continued) Gray, wet, very stiff; sandy fat CLAY with gravel.			
25		12/6" 9/6" 11/6"				CL	Tan to gray, wet, very stiff, sandy lean CLAY; few gravel.			
30		5/6" 4/6" 4/6"	27	102.5			Dark brown to dark gray; stiff.			
35		50/3"					Brown to gray; scattered layers of moderately hard to hard caliche up to a few inches thick.			
40										

**FIGURE A-2**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/15/21	Downtown Civic Center Building and Plaza B-1		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 3 OF 4	
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
40		5/6" 18/6" 16/6"				CL	NATIVE SOIL: (Continued) Dark brown to dark gray, wet, very stiff, sandy lean CLAY with gravel.			
45		1/6" 7/6" 10/6"				CH	Light brown to grayish brown, wet, very stiff; sandy fat CLAY.			
50		7/6" 20/6" 22/6"				CL	Gray, wet, very stiff; sandy lean CLAY; scattered layers of moderately hard to hard CALICHE up to a few inches thick.			
55		5/6" 7/6" 9/6"				CH	Dark grayish brown, wet, very stiff, sandy fat CLAY.			
60										

**FIGURE A- 3**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/15/21	Downtown Civic Center Building and Plaza B-1		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 4 OF 4	
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
60						CH	NATIVE SOIL: (Continued) Dark grayish brown, wet, very stiff, sandy fat CLAY.			
65		14/6" 15/6" 28/6"	24.6	97.9		CL	Gray, wet, very stiff, sandy lean CLAY with some gravel.			
70		1/6" 1/6" 2/6"					Gray and brown; soft; no gravel.			
75		1/6" 1/6" 2/6"								
80							Total Depth = 76.5 feet. Groundwater was measured at a depth of approximately 18.7 feet during drilling. Backfilled and patched on 11/15/21. <b>Notes:</b> Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			

**FIGURE A- 4**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	Downtown Civic Center Building and Plaza BORING NO. B-2					
							DATE DRILLED	11/16/21				
							GROUND ELEVATION	2,028' ± (MSL)	SHEET	1	OF	4
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig				
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP	30"		
							SAMPLED BY	MST	LOGGED BY	MST	REVIEWED BY	EDE
							<b>DESCRIPTION/INTERPRETATION</b>					
0						SM	<b>ASPHALT PAVEMENT:</b> Approximately 2 inches thick. <b>FILL:</b> Dark brown, dry, very dense, silty SAND with gravel (aggregate base material); scattered pieces of cobble (3 to 6 inches nominal diameter).					
						SC	<b>NATIVE SOIL:</b> Brown, dry, dense, clayey SAND with some gravel.					
						CH	Brown, moist, very stiff; sandy fat CLAY; trace gravel.  Gray; slightly cemented.					
5	5/6" 10/6" 32/6"		17.4	103.2			Firm.					
10	4/6" 3/6" 2/6"											
15	15/6" 19/6" 21/6"		17.9	117.7		CL	Tan to gray, wet, very stiff; sandy lean CLAY with gravel.					
20												

**FIGURE A- 5**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/16/21	Downtown Civic Center Building and Plaza B-2		
							GROUND ELEVATION	2,028' ± (MSL)	SHEET 2 OF 4	
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20	☒	50/3"					NATIVE SOIL: (Continued) Gray, wet, hard, CALICHE; strongly cemented.			
						CL	Gray, wet, very stiff, clayey GRAVEL with sand.			
25		14/6" 16/6" 15/6"	19	112.9		SM	Gray, wet, medium dense, silty SAND with gravel.			
30		2/6" 2/6" 9/6"				CL	Tan to gray, wet, very stiff, lean CLAY.			
35	☒	50/4"					Gray, wet, moderately hard to hard, CALICHE; moderately to strongly cemented.			
						CH	Light brown to brown, wet, stiff, fat CLAY.			
40										

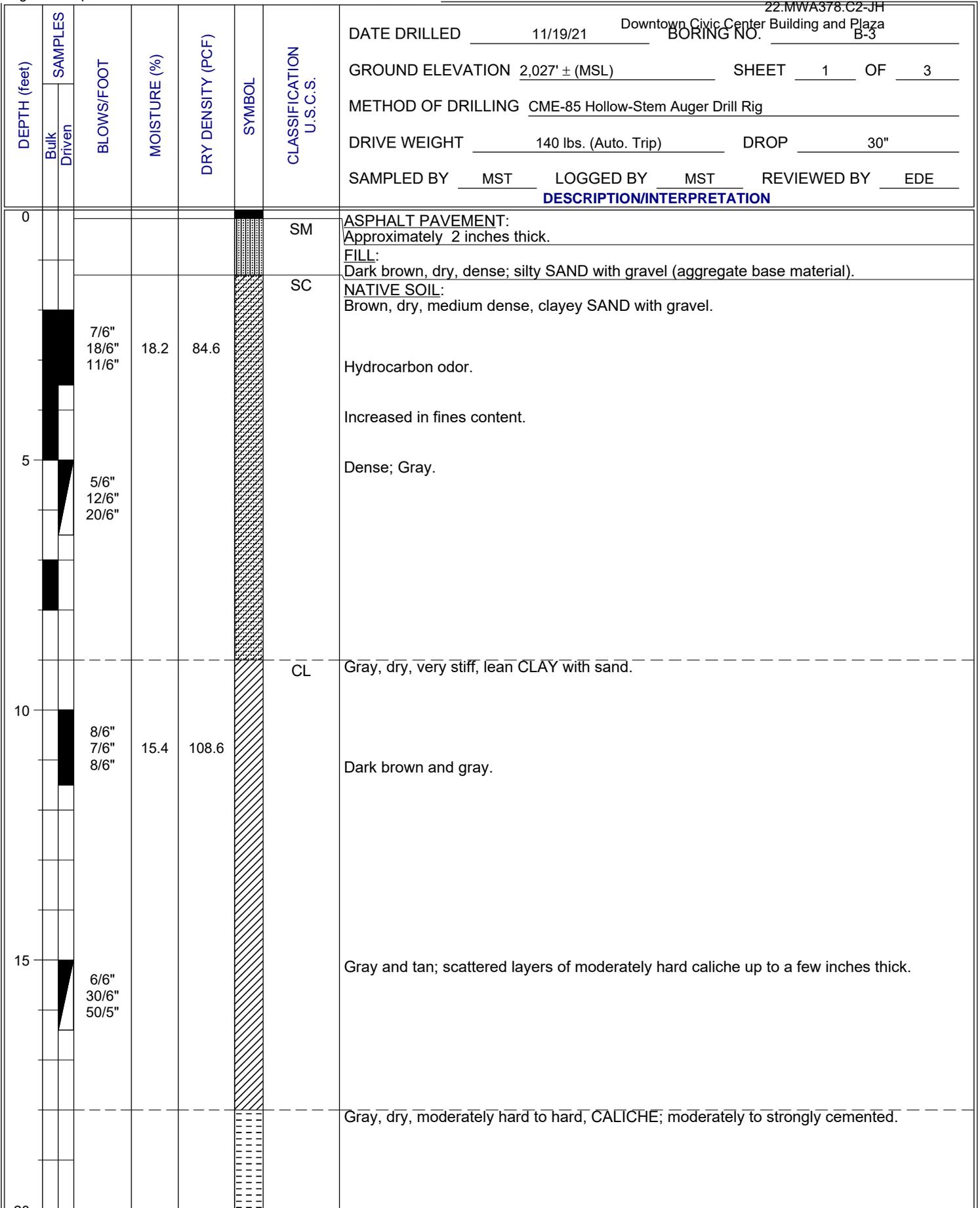
**FIGURE A- 6**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/16/21	Downtown Civic Center Building and Plaza B-2		
							GROUND ELEVATION	2,028' ± (MSL)	SHEET 3 OF 4	
							METHOD OF DRILLING	CME-85 Mud Rotary Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	
									REVIEWED BY EDE	
							<b>DESCRIPTION/INTERPRETATION</b>			
40		1/6" 10/6" 14/6"				CL	NATIVE SOIL: (Continued) Light brown brown, wet, very stiff, sandy lean CLAY; few gravel.			
45	⊗	50/2"					Gray, wet, hard, CALICHE; strongly cemented.			
50		14/6" 12/6" 6/6"	26.4	99.7		CL	Gray, wet, very stiff; sandy lean CLAY.			
55		4/6" 7/6" 14/6"					Trace gravel.			
60										

**FIGURE A-7**

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	Downtown Civic Center Building and Plaza		
	Bulk	Driven						DATE DRILLED	BORING NO.	B-2
								11/16/21		
								2,028' ± (MSL)	SHEET	4 OF 4
								CME-85 Mud Rotary Drill Rig		
								140 lbs. (Auto. Trip)	DROP	30"
								MST	MST	EDE
<b>DESCRIPTION/INTERPRETATION</b>										
60							CL	NATIVE SOIL: (Continued) Gray, wet, very stiff, sandy lean CLAY; trace gravel.		
65			6/6" 7/6" 10/6"	47.2	75.5		CH	Gray, wet, very stiff, sandy fat CLAY with gravel.		
70										
75			4/6" 6/6" 7/6"				CL	Tan, wet, very stiff, lean CLAY with gravel.		
80								Total Depth = 76.5 feet. Groundwater was measured at a depth of approximately 15.5 feet during drilling. Backfilled and patched on 11/16/21. <b>Notes:</b> Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.		

**FIGURE A- 8**



**FIGURE A-9**

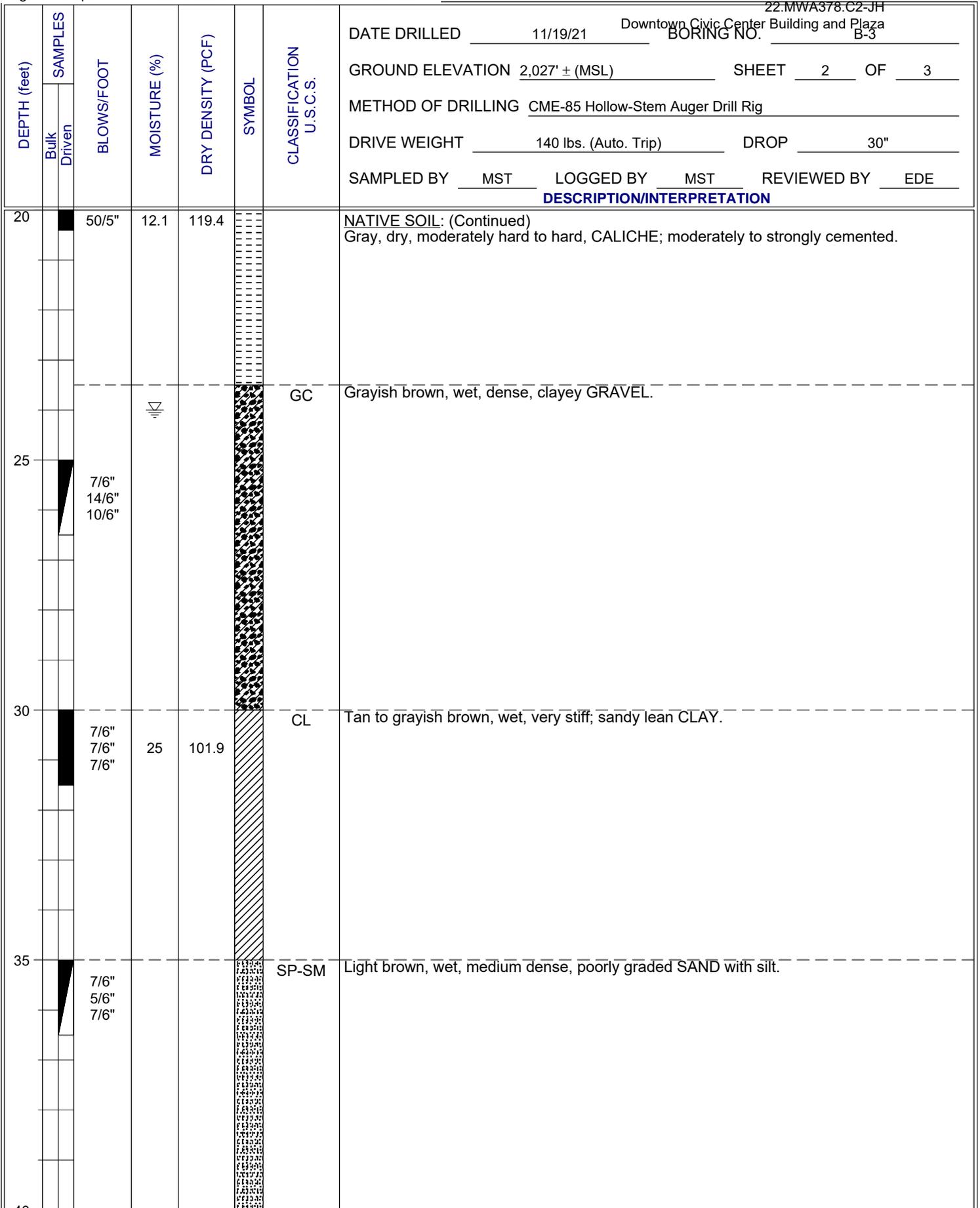
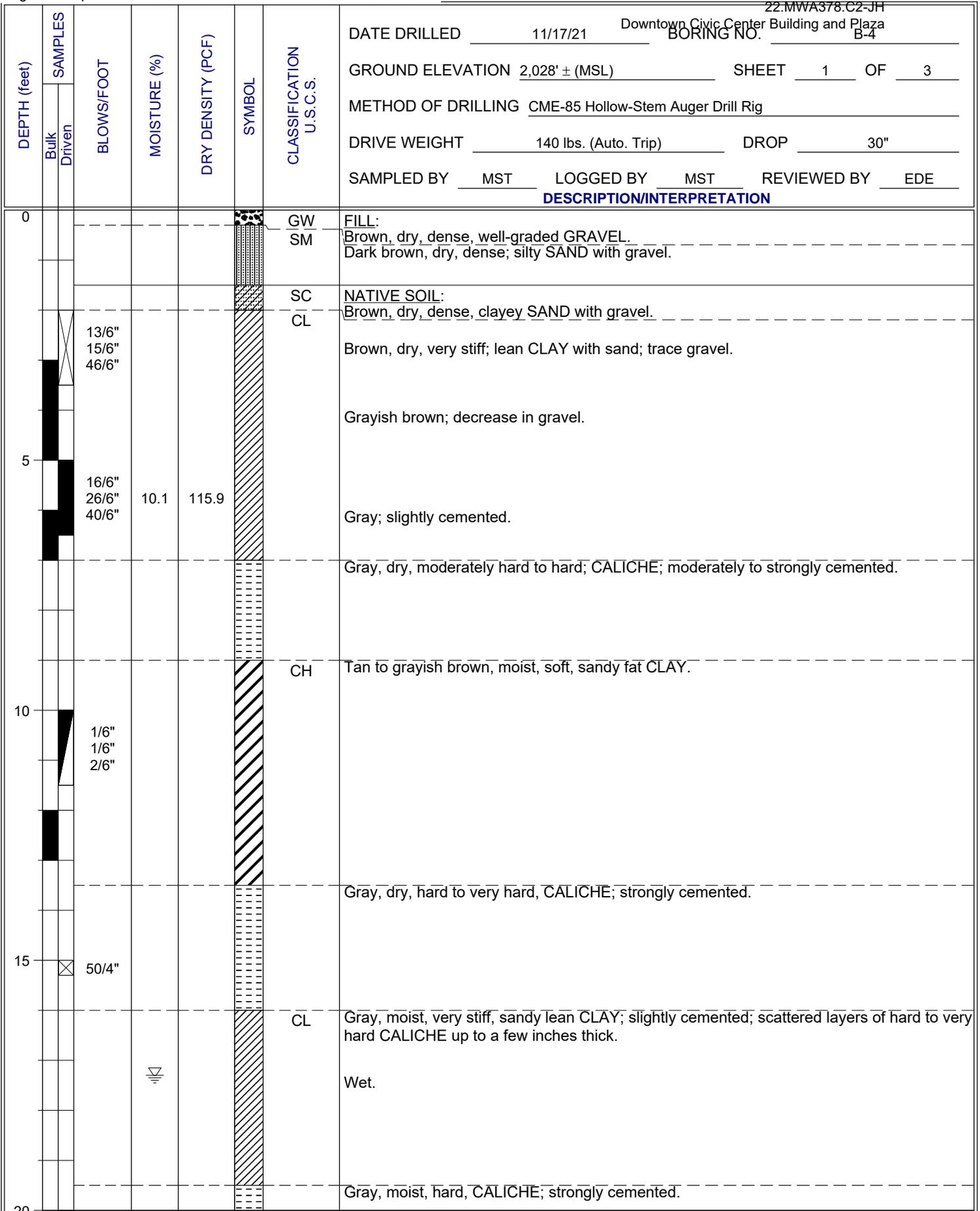


FIGURE A- 10

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/19/21	Downtown Civic Center Building and Plaza B-3		
							GROUND ELEVATION	2,027' ± (MSL)	SHEET 3 OF 3	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
40	█	1/6" 2/6" 5/6"	57.1	69.9		CL	NATIVE SOIL: (Continued) Light brown and gray, wet, stiff, lean CLAY.			
45	▴	12/6" 46/6" 50/1"					Gray, very stiff; increased in gravel content; slightly cemented.			
50	█	19/6" 16/6" 17/6"	21.3	108.9			Increase in sand content.			
							Total Depth = 51.5 feet. Groundwater was measured at a depth of approximately 24 feet during drilling. Backfilled and patched on 11/19/21.			
							Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.			
							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			
60										

**FIGURE A- 11**



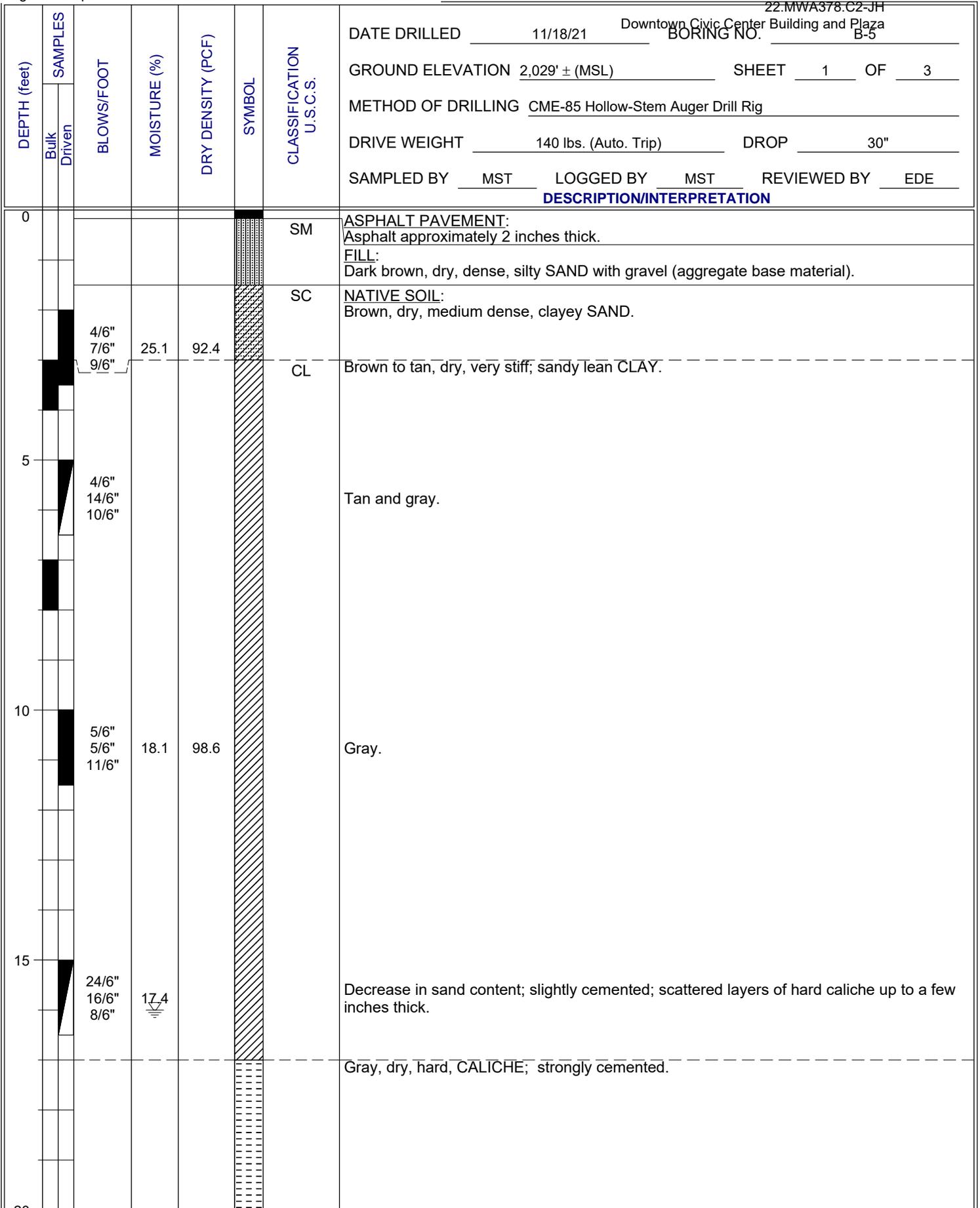
**FIGURE A- 12**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/17/21	Downtown Civic Center Building and Plaza B-4		
							GROUND ELEVATION	2,028' ± (MSL)	SHEET 2 OF 3	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20	☒	50/3"					NATIVE SOIL: (Continued) Gray, moist, hard, CALICHE; strongly cemented.			
						SC	Gray, moist; very dense, clayey SAND with gravel; scattered layers of moderately hard CALICHE; up to a few inches thick.			
							No caliche.			
25		5/6" 5/6" 5/6"	33.6	89.2						
						CH	Gray to brown, wet, stiff, sandy fat CLAY.			
30		1/6" 0/6" 0/6"								
						CL	Tan to grayish brown, wet, very soft; lean CLAY.			
35		9/6" 9/6" 12/6"	20.6	108.4						
						SC	Tan to grayish brown, wet, medium dense, clayey SAND with gravel.			
40										

**FIGURE A- 13**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/17/21	Downtown Civic Center Building and Plaza B-4		
							GROUND ELEVATION	2,028' ± (MSL)	SHEET 3 OF 3	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
40	2/6" 7/6" 8/6"					CL	NATIVE SOIL: (Continued) Brown to tan; wet; very stiff; lean CLAY with gravel.			
45	31/6" 50/5"	22.3	105.0				Scattered layers of hard CALICHE up to a few inches thick; increase in sand content.			
50	5/6" 6/6" 10/6"						No caliche.			
55							Total Depth = 51.5 feet. Groundwater was measured at a depth of approximately 17.3 feet during drilling. Backfilled on 11/17/2021.			
60							<b>Notes:</b> Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.  The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			

**FIGURE A- 14**



**FIGURE A- 15**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/18/21	Downtown Civic Center Building and Plaza B-5		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 2 OF 3	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20	9/6" 17/6" 30/6"	19.2	89.7	CL	NATIVE SOIL: (Continued) Gray, moist, very stiff, sandy lean CLAY with gravel; scattered layers of hard caliche up to a few inches thick; slightly cemented.					
25	3/6" 7/6" 7/6"	22.3		CL	Gray to brown; wet; no gravel; no caliche.					
30	1/6" 1/6" 8/6"	46.3	74.8	SM	Gray, wet, loose, silty SAND.					
				CL	Tan to gray, wet, very stiff; sandy lean CLAY; slightly cemented.					
35	37/6" 50/4"	12.8		CL	Gray, wet, moderately hard to hard; CALICHE; moderately to strongly cemented.					
				CL	Gray, wet, very stiff, lean CLAY; scattered layers of moderately hard to hard caliche up to a few inches thick.					
40										

**FIGURE A- 16**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/18/21	Downtown Civic Center Building and Plaza	B-5	
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 3 OF 3	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
40		40/6" 50/3"	14.6	114.9			<b>NATIVE SOIL:</b> (Continued) Gray, wet, moderately hard CALICHE; moderately cemented.			
45		41/6" 50/1"	21.6			CH	Gray, wet, very stiff, sandy fat CLAY; slightly cemented.  Scattered layers of hard to very hard caliche up to a few inches thick.			
50		26/6" 50/1"					Gray, wet, hard, CALICHE; strongly cemented.			
55							Total Depth = 50.6 feet. Groundwater was measured at a depth of approximately 16.0 feet during drilling. Backfilled and patched on 11/18/21.			
60							<b>Notes:</b> Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.  The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			

**FIGURE A- 17**

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>11/16/21</u> <u>Downtown Civic Center Building and Plaza</u>		BORING NO. <u>B-6</u>	
	Bulk	Driven						GROUND ELEVATION <u>2,029' ± (MSL)</u> SHEET <u>1</u> OF <u>2</u>		METHOD OF DRILLING <u>CME-85 Hollow-Stem Auger Drill Rig</u>	
<b>DESCRIPTION/INTERPRETATION</b>											
0							GW SM	FILL: Gray, dry, dense, well-graded GRAVEL. Dark brown, dry, dense, silty SAND with gravel (aggregate base material).			
			5/6" 8/6" 8/6"	23.8	100.9		SC CH	NATIVE SOIL: Brown, dry, dense, clayey SAND.  Brown, dry, very stiff, fat CLAY with sand.			
5			13/6" 12/6" 12/6"				SC	Gray, dry, dense, clayey SAND.			
							CL	Tan, dry, hard to very hard, CALICHE; strongly cemented.			
10			5/6" 9/6" 14/6"				CL	Tan to grayish brown, moist, very stiff; sandy lean CLAY.			
							CL	Gray, dry, moderately hard to hard, CALICHE; moderately to strongly cemented.			
15			13/6" 22/6" 33/6"	13.6	112.9		CL	Gray, moist, very stiff; sandy lean CLAY with gravel.			
20											

FIGURE A- 18

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/16/21	Downtown Civic Center Building and Plaza B-6		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 2 OF 2	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20		50/5"				CL	<p><b>NATIVE SOIL: (Continued)</b>                      Gray, moist, very stiff, sandy lean CLAY with gravel; scattered layers of moderately hard caliche up to a few inches thick.</p>			
25		5/6" 6/6" 13/6"	23.7	103.1			<p>Wet; increase in gravel content; no caliche.</p>			
30							<p>Total Depth = 26.5 feet.                      Groundwater was measured at a depth of approximately 21.3 feet during drilling.                      Backfilled on 11/16/21.</p> <p><b>Notes:</b>                      Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.</p> <p>The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.</p>			
35										
40										

**FIGURE A- 19**

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>11/18/21</u> <u>Downtown Civic Center Building and Plaza</u>		BORING NO. <u>B-7</u>	
	Bulk	Driven						GROUND ELEVATION <u>2,029' ± (MSL)</u> SHEET <u>1</u> OF <u>2</u>		METHOD OF DRILLING <u>CME-85 Hollow-Stem Auger Drill Rig</u>	
<b>DESCRIPTION/INTERPRETATION</b>											
0						SM		ASPHALT PAVEMENT: Approximately 2 inches thick.			
						SC		FILL: Dark brown, dry, dense, silty SAND with gravel (aggregate base material).			
						CL		NATIVE SOIL: Brown, dry, dense, clayey SAND with gravel. Dark brown, dry, very stiff, sandy lean CLAY with gravel.			
	4/6" 7/6" 9/6"		18.8	100.0				Gray.			
5								Slightly cemented.			
	9/6" 7/6" 14/6"							Gray, dry, moderately hard, CALICHE; moderately cemented.			
						SC		Gray, dry, very dense, clayey SAND with gravel; scattered layers of moderately hard caliche up to a few inches thick.			
10								Hydrocarbon odor; increase in gravel content.			
	6/6" 23/6" 50/5"		11.5	115.3				Gray, dry, hard to very hard, CALICHE; strongly cemented.			
						CL		Gray, dry, very stiff; sandy lean CLAY; scattered layers of hard caliche up to a few inches thick.			
15								Gray, dry, very hard, CALICHE; strongly cemented.			
	23/6" 50/3"										
20											

FIGURE A- 20

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/18/21	Downtown Civic Center Building and Plaza B-7		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 2 OF 2	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
20	17/6" 17/6" 23/6"		14.1	108.6		SC SC CL	<p><b>NATIVE SOIL: (Continued)</b>                      Gray, wet, dense, clayey SAND; scattered layers of hard caliche up to a few inches thick.</p> <p>Gray, wet, very stiff, sandy lean CLAY with some pea-sized gravel.</p>			
25	2/6" 4/6" 7/6"					CH	<p>Gray, wet, very stiff, fat CLAY with gravel.</p>			
							<p>Total Depth = 26.5 feet.                      Groundwater was measured at a depth of approximately 20.0 feet during drilling.                      Backfilled and patched on 11/18/21.</p> <p><b>Notes:</b>                      Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.</p> <p>The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.</p>			
30										
35										
40										

**FIGURE A- 21**

DEPTH (feet)	Bulk Samples Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>11/19/21</u> <span style="float: right;">Downtown Civic Center Building and Plaza</span>
							BORING NO. <u>B-8</u>
							GROUND ELEVATION <u>2,029' ± (MSL)</u> SHEET <u>1</u> OF <u>2</u>
							METHOD OF DRILLING <u>CME-85 Hollow-Stem Auger Drill Rig</u>
							DRIVE WEIGHT <u>140 lbs. (Auto. Trip)</u> DROP <u>30"</u>
SAMPLED BY <u>MST</u> LOGGED BY <u>MST</u> REVIEWED BY <u>EDE</u>							

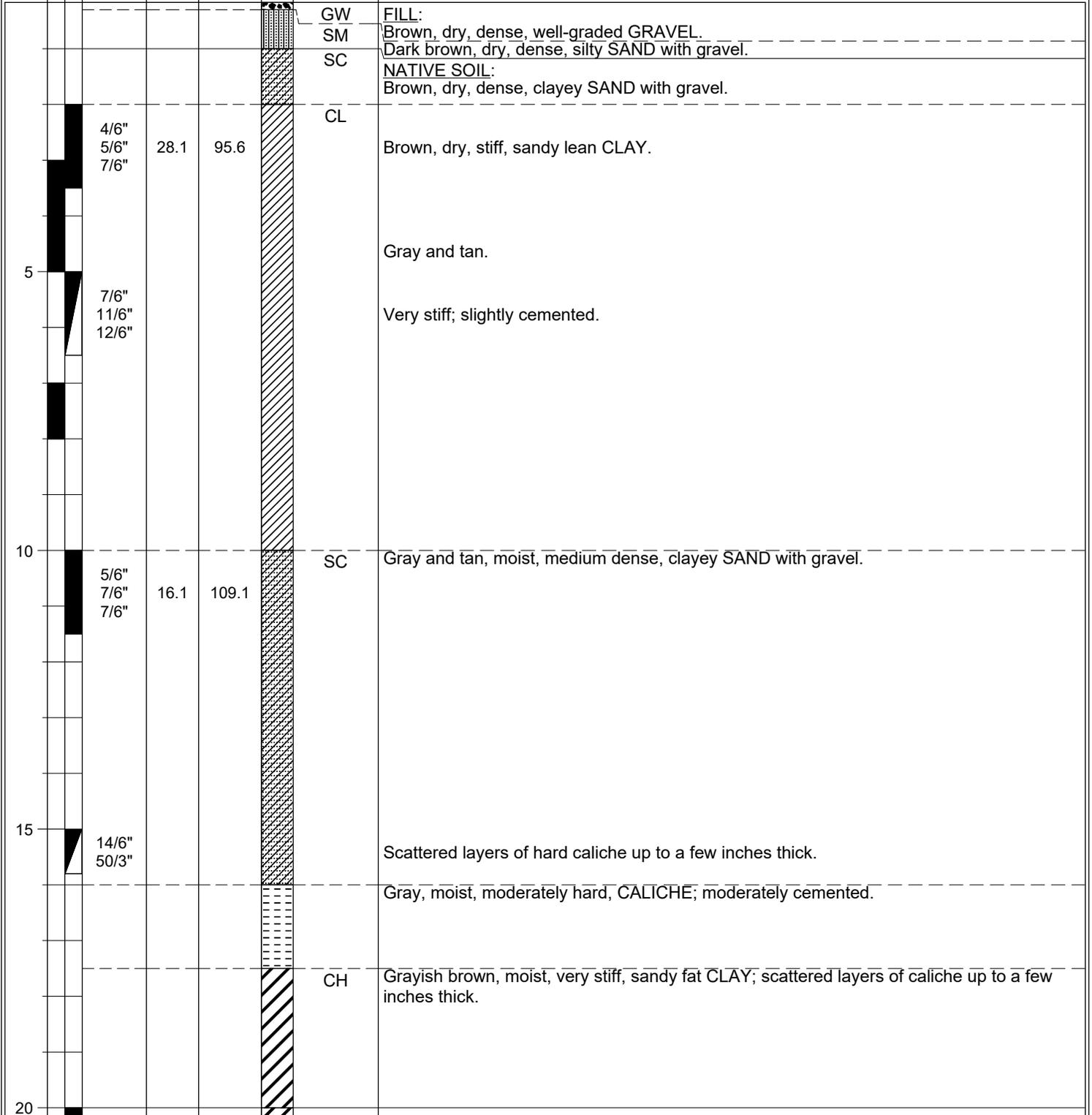


FIGURE A- 22

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/19/21	Downtown Civic Center Building and Plaza B-8		
							GROUND ELEVATION	2,029' ± (MSL)	SHEET 2 OF 2	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
		27/6" 50/3"	15.4	113.6		CH	NATIVE SOIL: (Continued) Gray and grayish brown, moist, very stiff, sandy fat CLAY; scattered pieces of CALICHE up to a few inches thick.			
25		8/6" 11/6" 13/6"				SC	Grayish brown, wet, dense, clayey SAND.			
							Total Depth = 26.5 feet. Groundwater was measured at a depth of approximately 22.5 feet during drilling. Backfilled on 11/19/21.			
							<u>Notes:</u> Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.			
							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			
30										
35										
40										

**FIGURE A- 23**

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/19/21	Downtown Civic Center Building and Plaza	B-9	
							GROUND ELEVATION	2,027' ± (MSL)	SHEET 1 OF 1	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
0						SM	ASPHALT CONCRETE: Approximately 2 inches thick.			
						SC	FILL: Dark brown, dry, dense, silty SAND with gravel (aggregate base material).			
						CL	NATIVE SOIL: Brown, dry, dense, clayey SAND with gravel; trace silt; hydrocarbon odor.			
	5/6" 11/6" 19/6"	18	84.0				Brown, dry, very stiff, sandy lean CLAY.			
5	7/6" 11/6" 18/6"						Gray and tan; slightly cemented.			
							Trace gravel.			
10	7/6" 8/6" 24/6"	13.7	114.2				Layers of moderately hard CALICHE up to a few inches thick.			
15	4/6" 20/6" 50/1"						Wet.			
							Total Depth = 16.1 feet. Groundwater was measured at a depth of approximately 14.7 feet during drilling. Backfilled and patched on 11/19/21.			
							Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			

FIGURE A- 24

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/17/21	Downtown Civic Center Building and Plaza B-10		
							GROUND ELEVATION	2,028' ± (MSL)	SHEET 1 OF 1	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
0						SM	ASPHALT CONCRETE: Approximately 2 inches thick.			
						SC	FILL: Dark brown, moist, dense, silty SAND with gravel (aggregate base material).			
		2/6" 4/6" 9/6"	26.3	86.7		CH	NATIVE SOIL: Dark brown, moist, dense, clayey SAND with gravel.			
							Dark brown, dry, stiff, sandy fat CLAY.			
5		11/6" 10/6" 12/6"					Gray.			
							Very stiff.			
10		7/6" 17/6" 50/5"	13.7	114.4		SC	Gray, moist, very dense, clayey SAND with gravel.			
							Gray, moist, hard, CALICHE; strongly cemented.			
						CL	Gray, moist, very stiff, sandy lean CLAY; scattered layers of moderately hard to hard caliche up to a few inches thick.			
							Gray, moist, very hard, CALICHE; strongly cemented.			
15		50/1"					Total Depth = 15.1 feet. Groundwater not encountered during drilling. Backfilled and patched on 11/17/21.			
							<u>Notes:</u> Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.			
							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			
20										

FIGURE A- 25

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.		
							11/17/21	Downtown Civic Center Building and Plaza B-11		
							GROUND ELEVATION	2,027' ± (MSL)	SHEET 1 OF 1	
							METHOD OF DRILLING	CME-85 Hollow-Stem Auger Drill Rig		
							DRIVE WEIGHT	140 lbs. (Auto. Trip)	DROP 30"	
							SAMPLED BY	MST	LOGGED BY MST	REVIEWED BY EDE
							<b>DESCRIPTION/INTERPRETATION</b>			
0						SM	ASPHALT CONCRETE: Approximately 2 inches thick.			
						CL	FILL: Brown, dry, dense, silty SAND with gravel (aggregate base material).			
	5/6" 8/6" 12/6"		23.3	88.8			NATIVE SOIL: Brown, dry, very stiff, lean CLAY with sand.			
5	12/6" 13/6" 50/4"						Gray; scattered layers of hard caliche up to a few inches thick; slightly cemented.			
							Gray, dry, hard, CALICHE; strongly cemented.			
						CL	Gray, dry, very stiff, sandy lean CLAY; scattered layers of hard caliche up to a few inches thick.			
10	13/6" 27/6" 50/3"		12.3	108.5			Slightly cemented.			
15	50/3"						Gray, moist, moderately hard to hard, CALICHE; moderately to strongly cemented.			
							Total Depth = 15.2 feet. Groundwater not encountered during drilling. Backfilled and patched on 11/17/21.			
							<u>Notes:</u> Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.			
							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.			
20										

**FIGURE A- 26**

# APPENDIX B

## Laboratory Testing

## **APPENDIX B**

### **LABORATORY TESTING**

#### **Classification**

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory excavations in Appendix A.

#### **In Place Moisture and Density**

The moisture content and dry density of ring-lined samples obtained from the exploratory excavations were evaluated in generally accordance with ASTM D 2937. The test results are presented on the logs of the exploratory excavations in Appendix A.

#### **Gradation Analysis**

Gradation analysis tests were performed on selected representative soil samples in general accordance with ASTM D 422. These test results were utilized in evaluating the soil classifications in accordance with the USCS. The grain-size distribution curves are shown on Figure B-1 through Figure B-17.

#### **Atterberg Limits**

Tests were performed on selected representative soil samples to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. These test results were utilized to evaluate soil classification in accordance with the USCS. The test results and classifications are shown on Figure B-18 through Figure B-20.

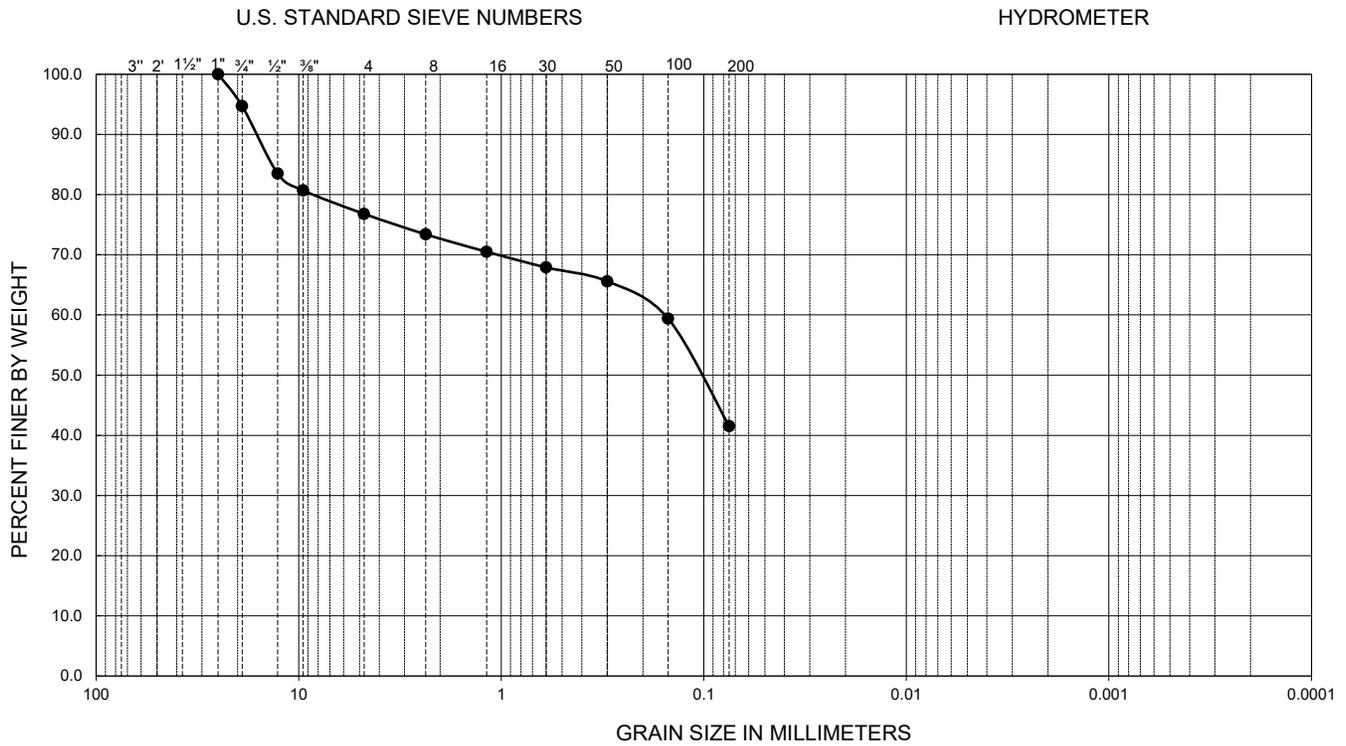
#### **Consolidation**

Consolidation tests were performed on selected relatively undisturbed soil samples in general accordance with ASTM D 2435. The samples were inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The consolidation test results are summarized graphically on Figure B-21 through Figure B-23.

#### **Swell Tests**

The swell potential of selected relatively undisturbed samples was evaluated. The samples were dried in a 60-degree centigrade oven for 8 hours or more and were loaded with a surcharge of 60 pounds per square foot before inundation with tap water, in general accordance with test criteria specified in Section 1803.5.3.2 of the referenced Southern Nevada Amendments to the 2018 International Building Code (SNBO, 2018). Readings of volumetric swell were recorded until completion of primary swell. The results of these tests are summarized on Figure B-24.

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-1	5.0-6.5	42	20	22	--	--	0.16	--	--	41.5	SC

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Clayey SAND with gravel
23.2	35.3	41.5	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

**FIGURE B-1**

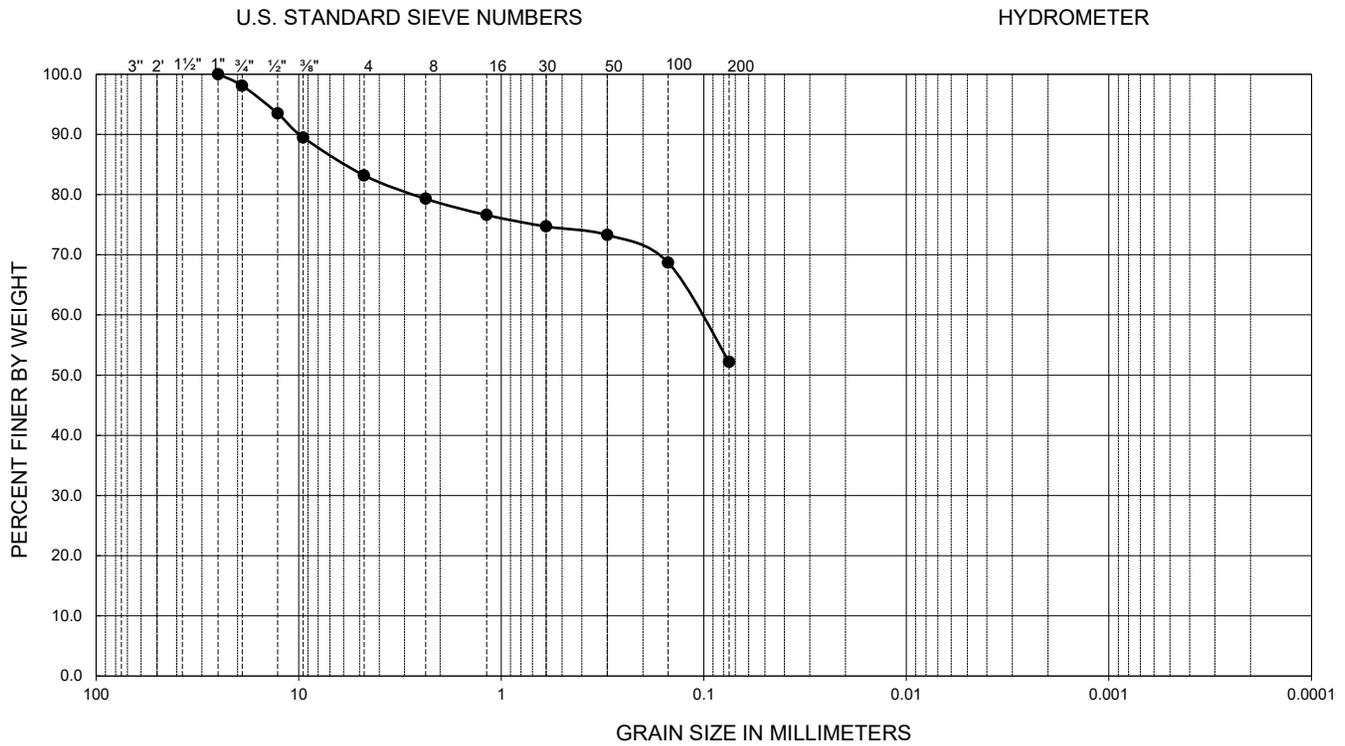
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-1	20.0-20.8	54	22	32	--	--	0.10	--	--	52.2	CH

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy fat CLAY with gravel
16.8	31.0	52.2	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

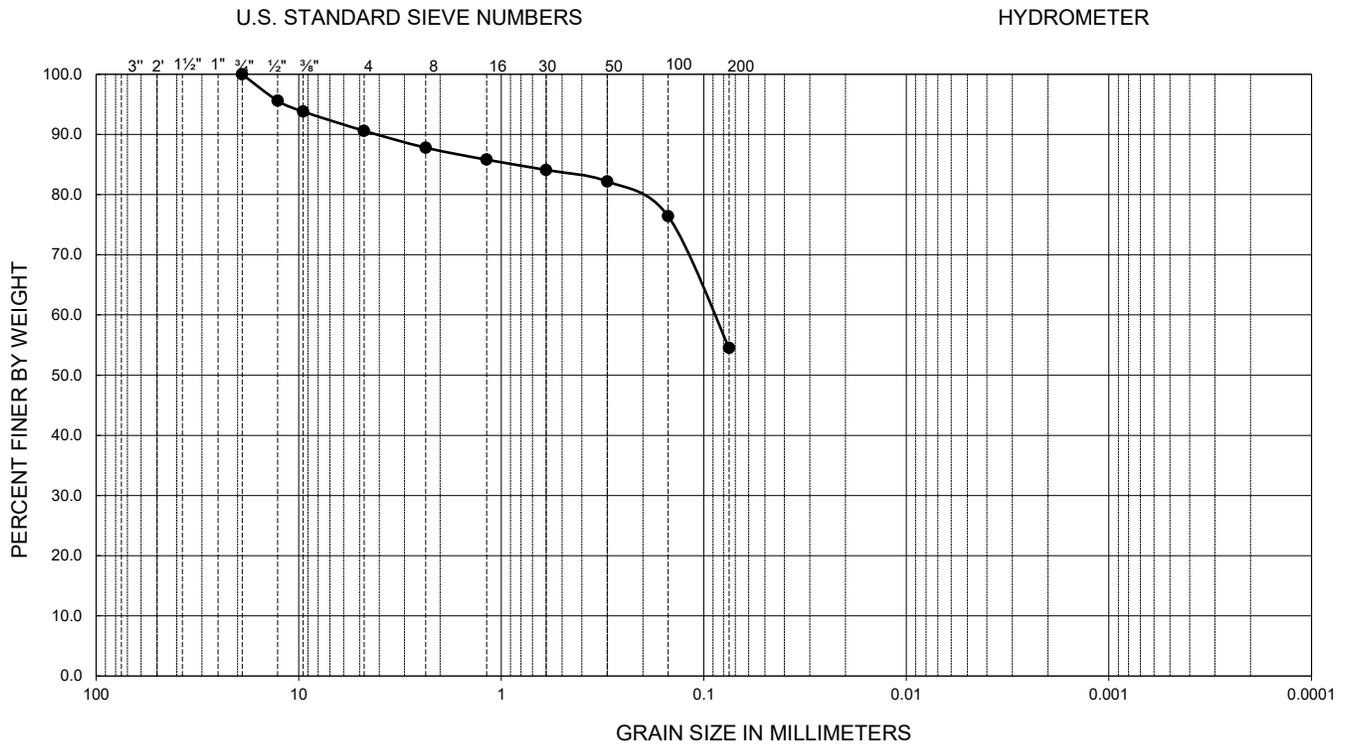
**FIGURE B-2**

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-1	30.0-31.5	35	20	15	--	--	0.09	--	--	54.5	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy lean CLAY
9.4	36.1	54.5	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

**FIGURE B-3**

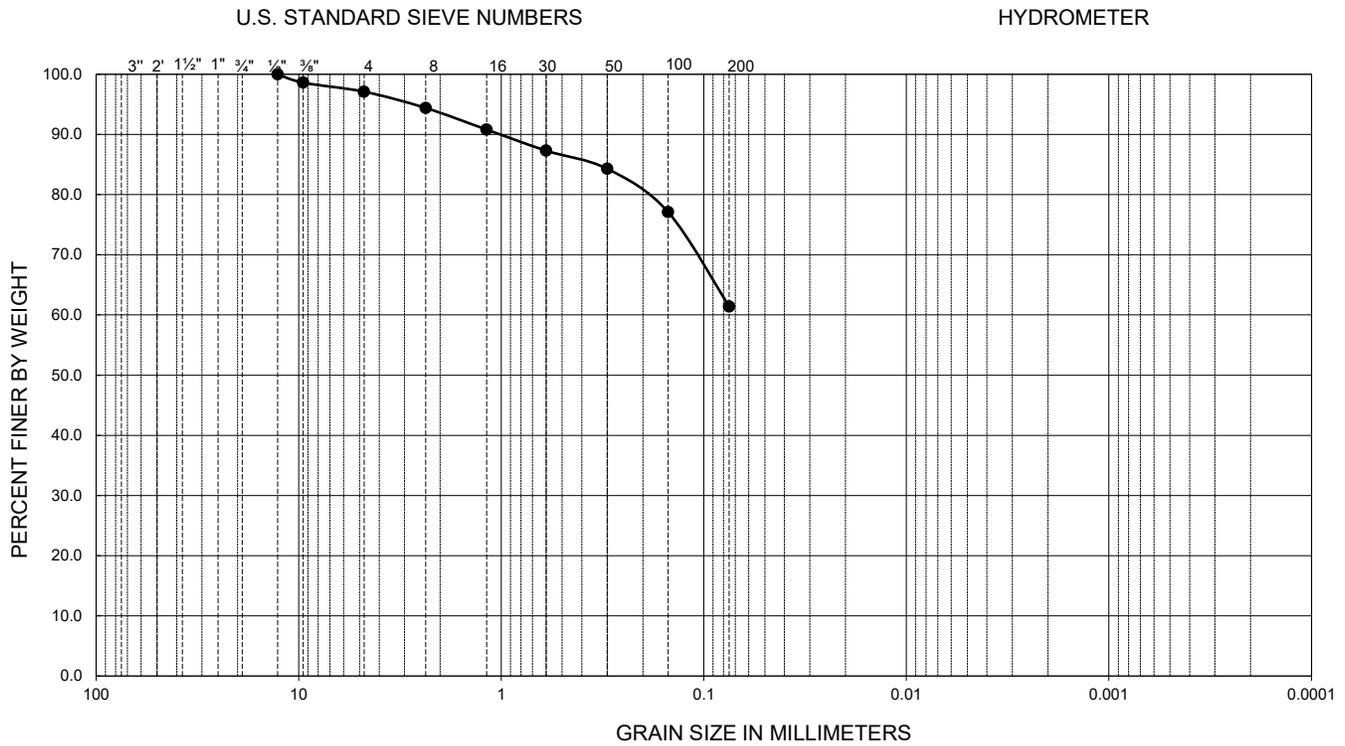
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-2	5.0-6.5	51	12	39	--	--	--	--	--	61.4	CH

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy fat CLAY
2.9	35.7	61.4	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

**FIGURE B-4**

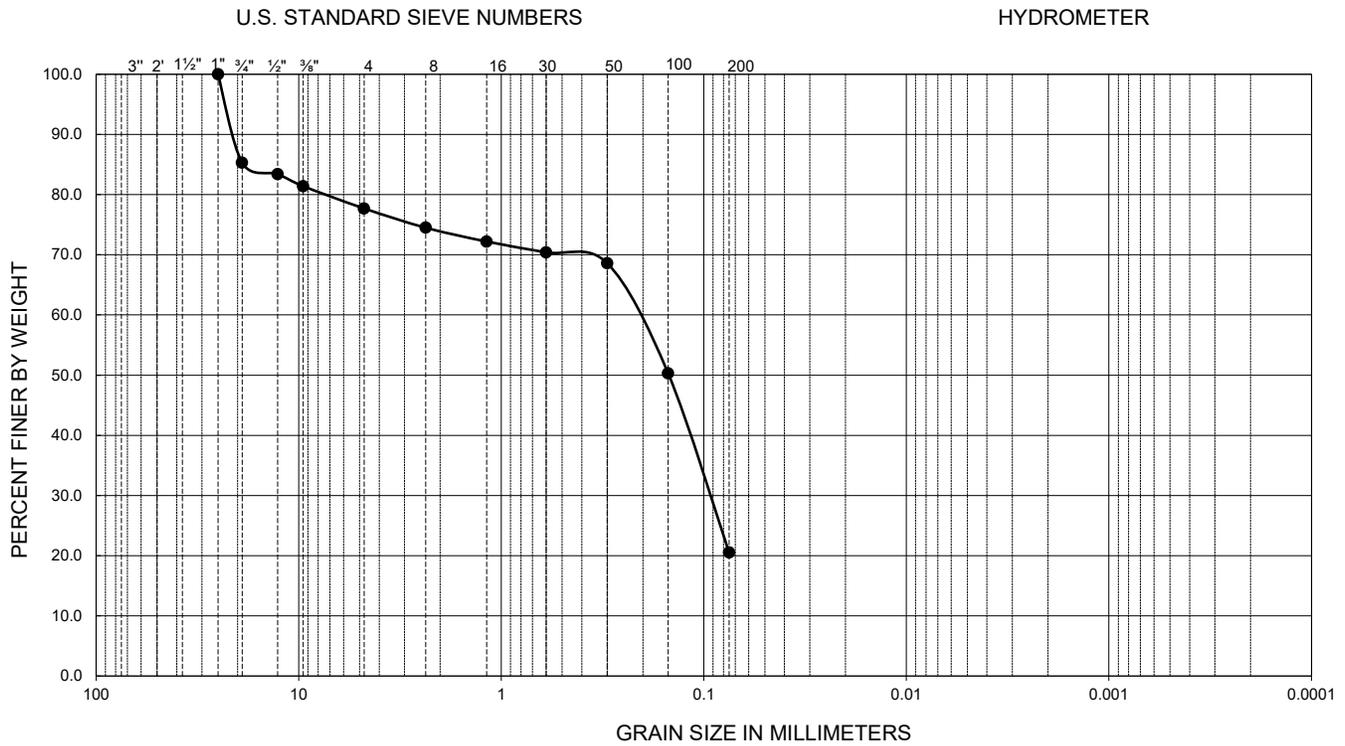
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



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GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-2	25.0-26.5	NP	NP	NP	--	0.09	0.22	--	--	20.5	SM

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Silty SAND with gravel
22.3	57.2	20.5	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

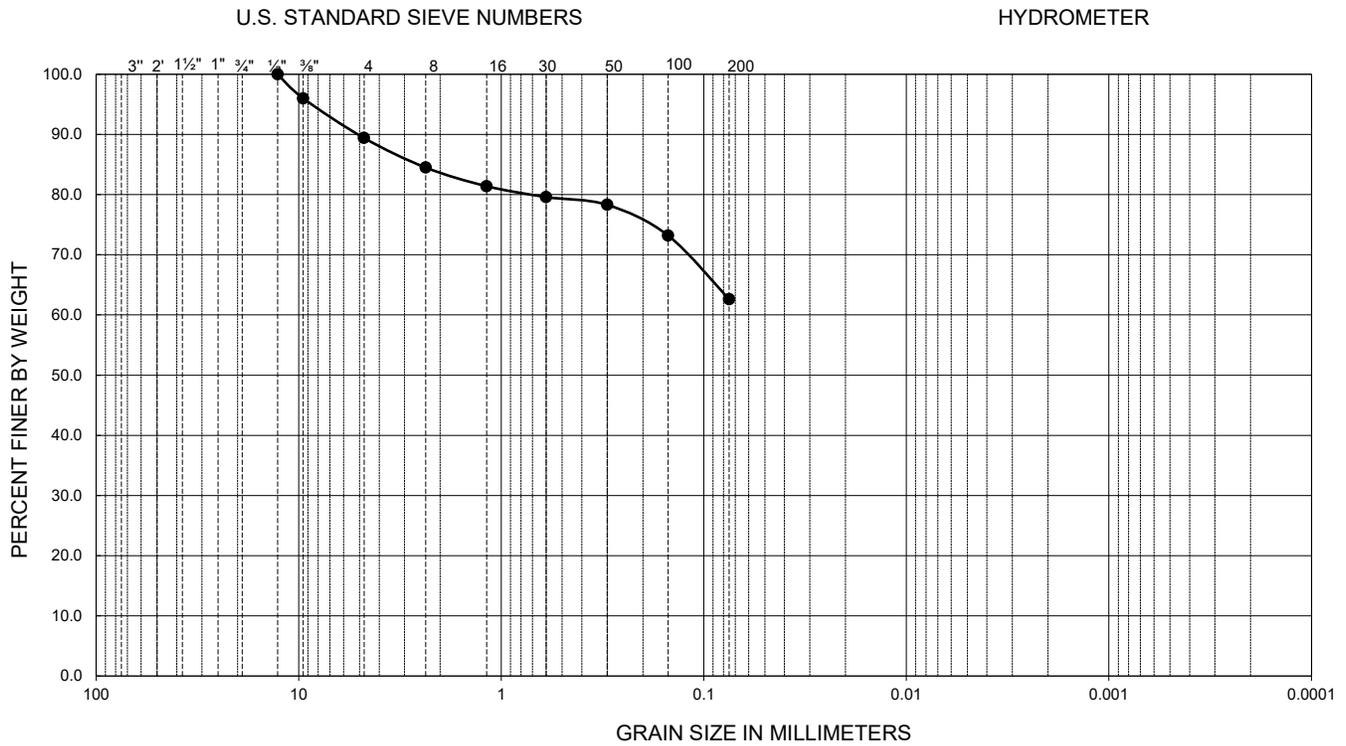
**FIGURE B-5**

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-2	40.0-41.5	30	17	13	--	--	--	--	--	62.6	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy lean CLAY
10.6	26.8	62.6	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-6

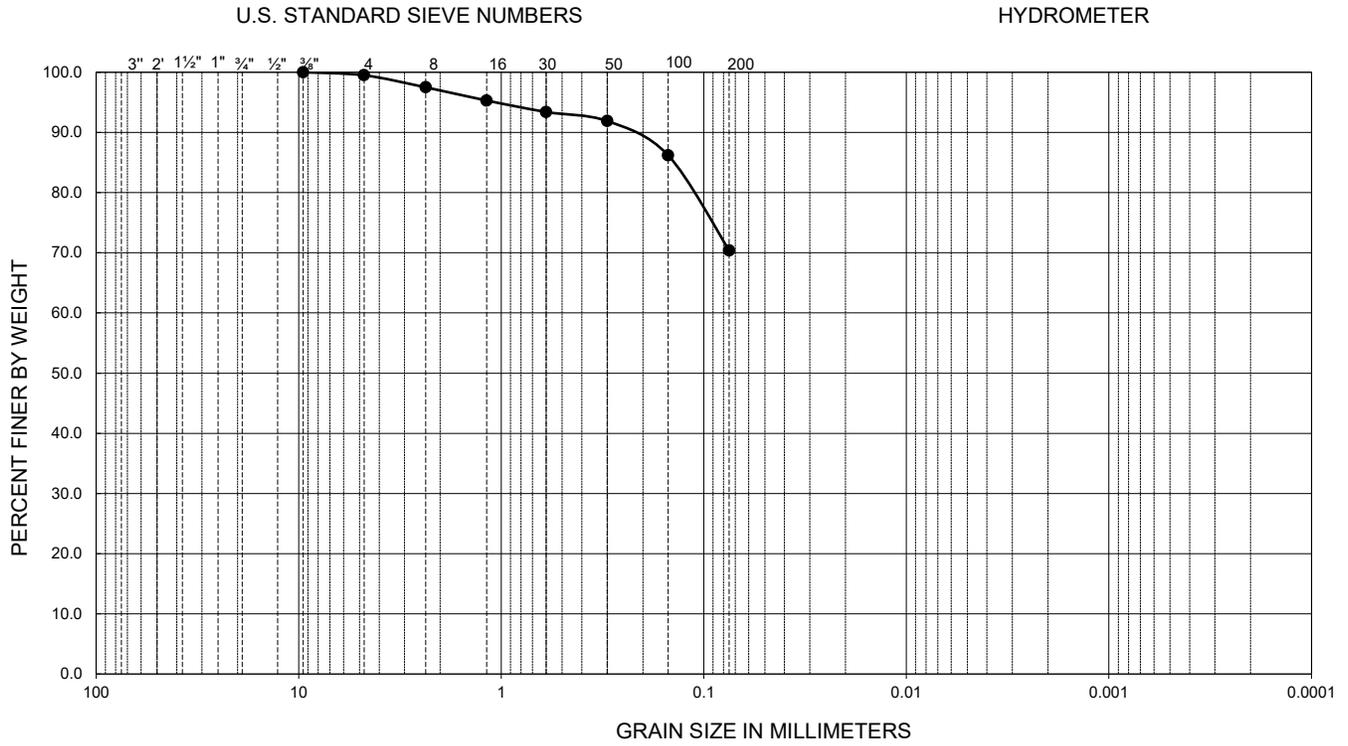
GRADATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-3	10.0-11.5	40	16	24	--	--	--	--	--	70.4	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Lean CLAY with sand
0.5	29.1	70.4	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-7

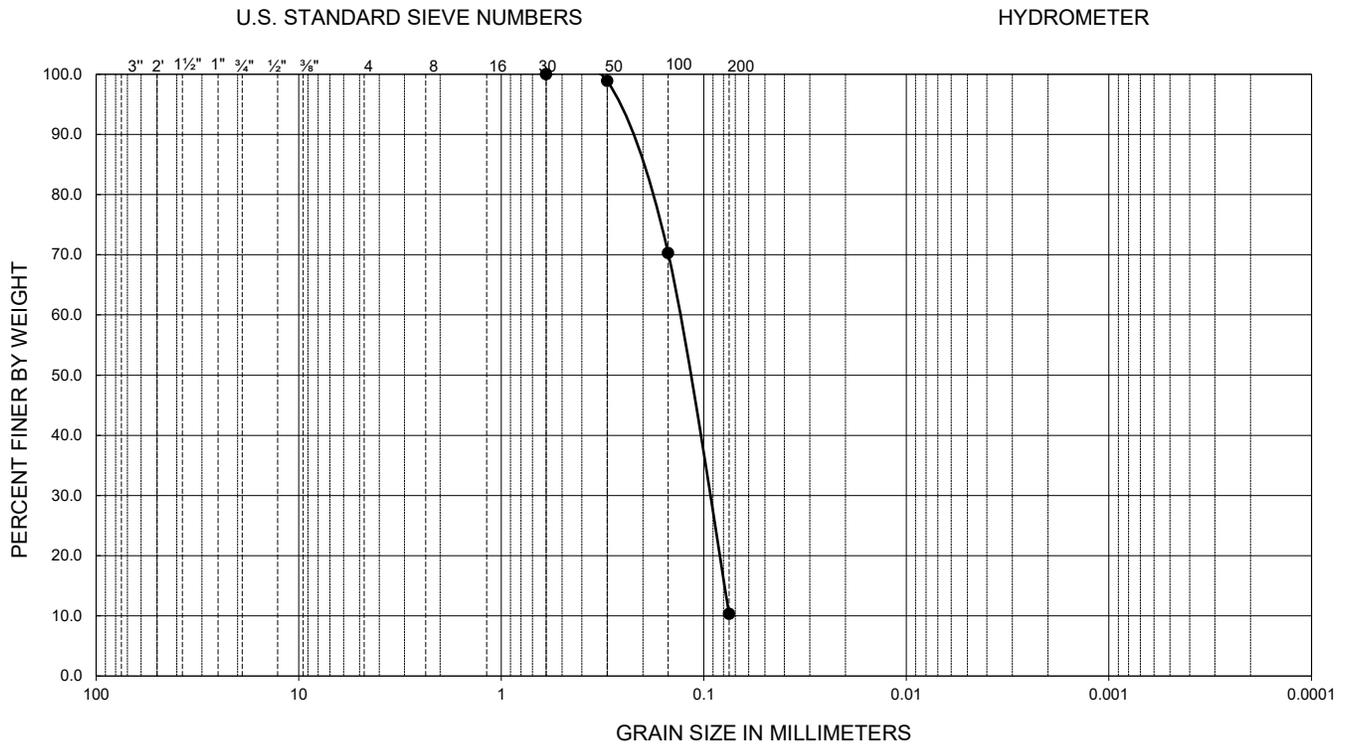
GRADATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



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GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-3	35.0-36.5	NP	NP	NP	--	0.09	0.13	--	--	10.3	SP-SM

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	
0.0	89.7	10.3	Poorly graded SAND with silt

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

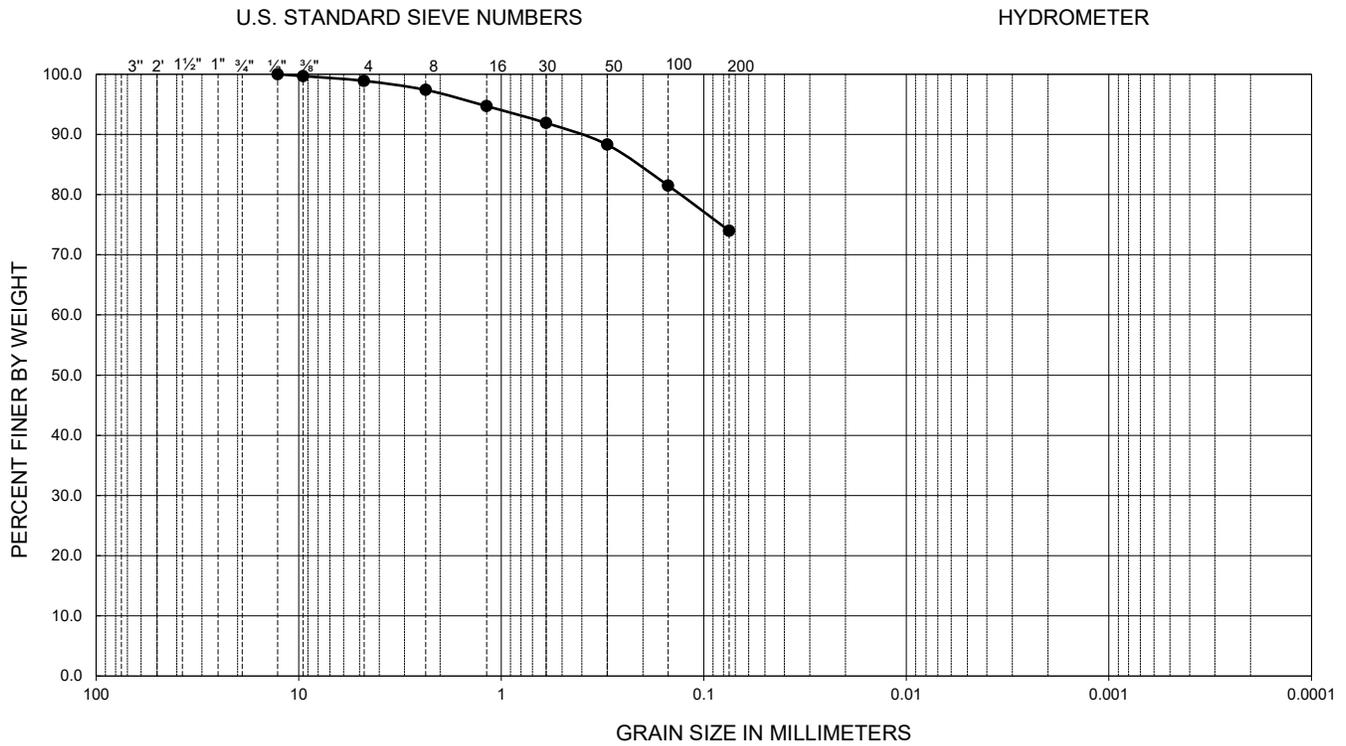
**FIGURE B-8**

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-4	5.0-6.5	37	23	14	--	--	--	--	--	74.0	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	
1.1	24.9	74.0	Lean CLAY with sand

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

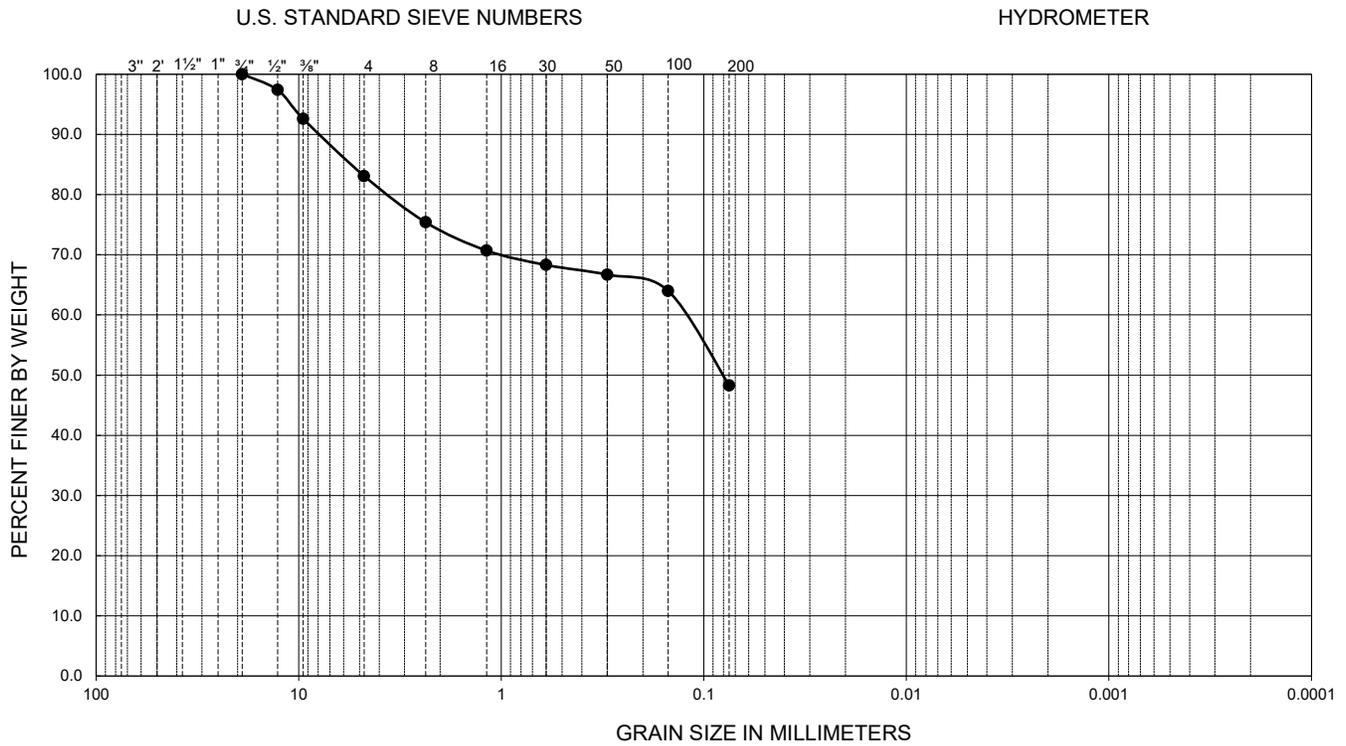
**FIGURE B-9**

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-4	25.0-26.5	51	18	33	--	--	0.13	--	--	48.3	SC

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Clayey SAND with gravel
16.9	34.8	48.3	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FINE CONTENT IS FAT CLAY

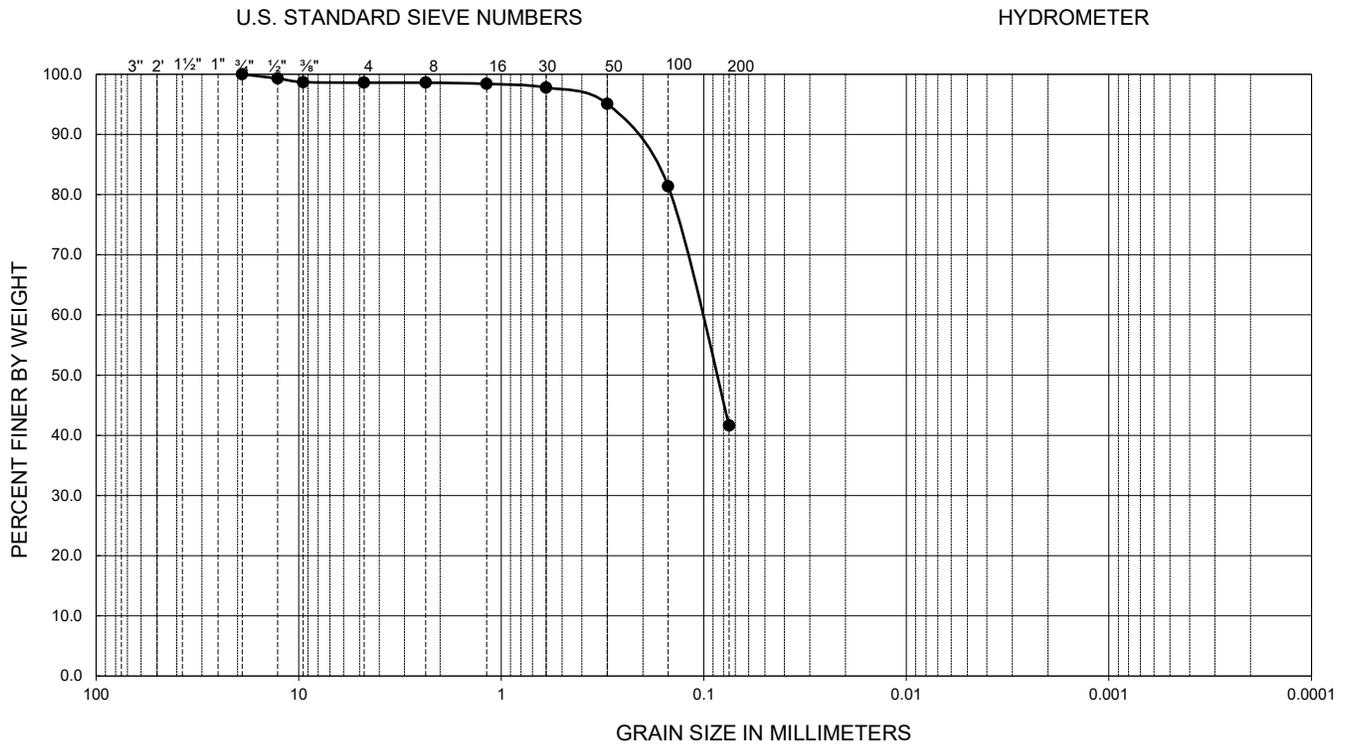
**FIGURE B-10**

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-5	30.0-31.5	NP	NP	NP	--	--	0.10	--	--	41.6	SM

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Silty SAND
1.4	57.0	41.6	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

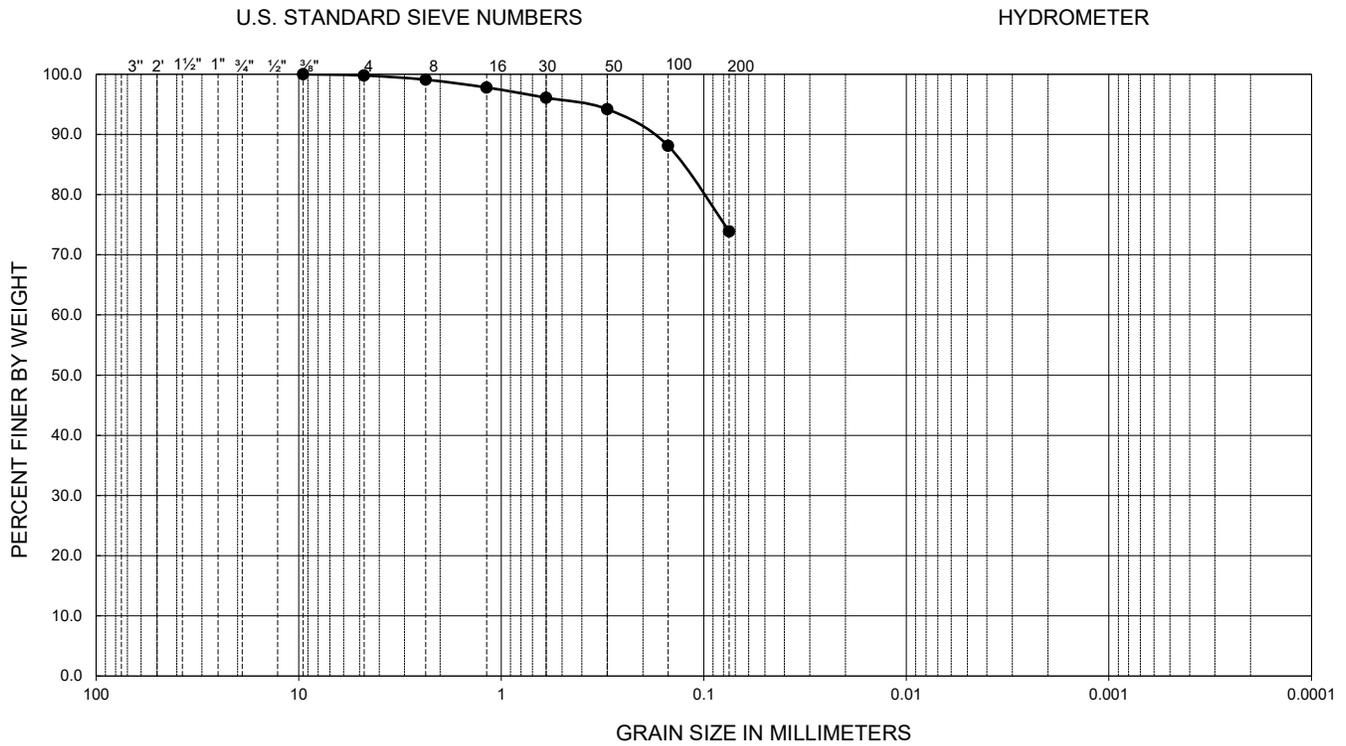
FIGURE B-11

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-6	2.0-3.5	63	16	47	--	--	--	--	--	73.9	CH

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Fat CLAY with sand
0.2	25.9	73.9	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-12

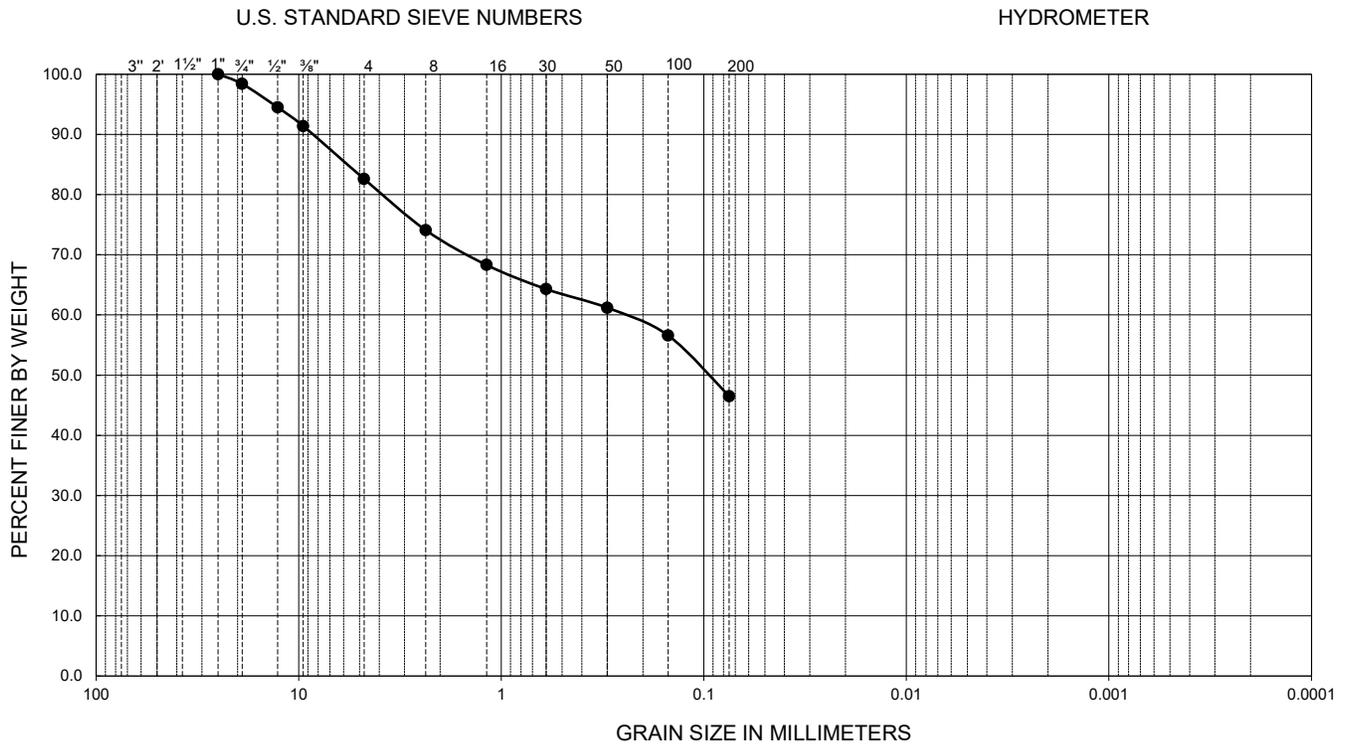
GRADATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-7	10.0-11.4	28	17	11	--	--	0.25	--	--	46.5	SC

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Clayey SAND with gravel
17.4	36.1	46.5	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-13

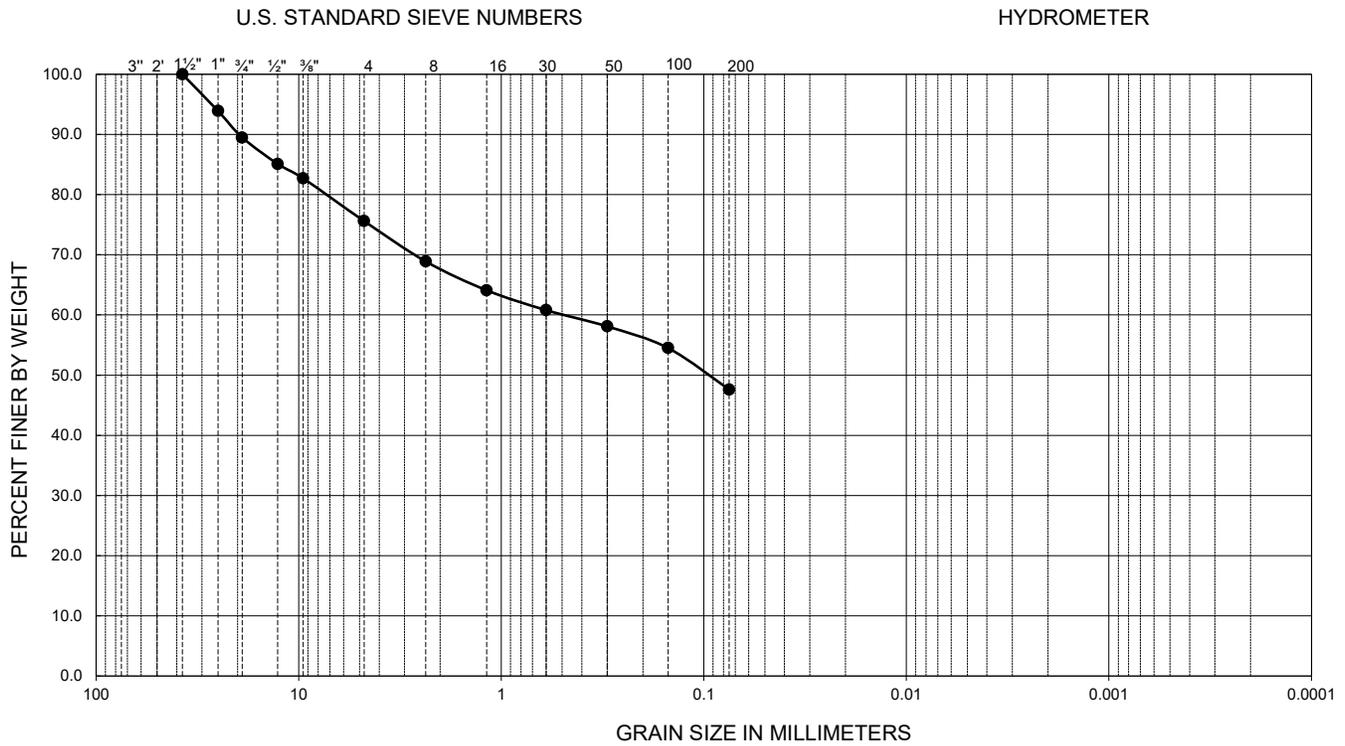
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA

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GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-8	10.0-11.5	32	15	17	--	--	0.49	--	--	47.6	SC

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Clayey SAND with gravel
24.4	28.0	47.6	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-14

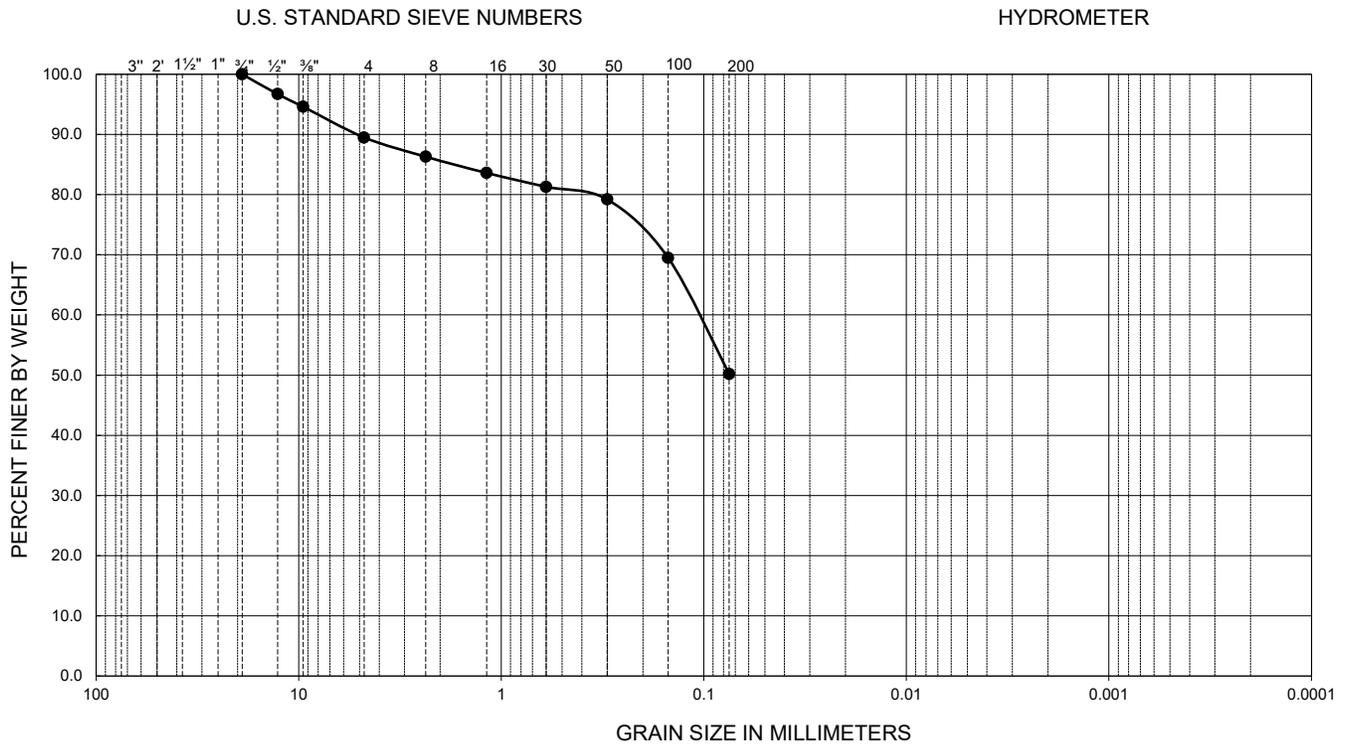
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-9	10.0-11.5	28	14	14	--	--	0.11	--	--	50.2	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy lean CLAY
10.5	39.3	50.2	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

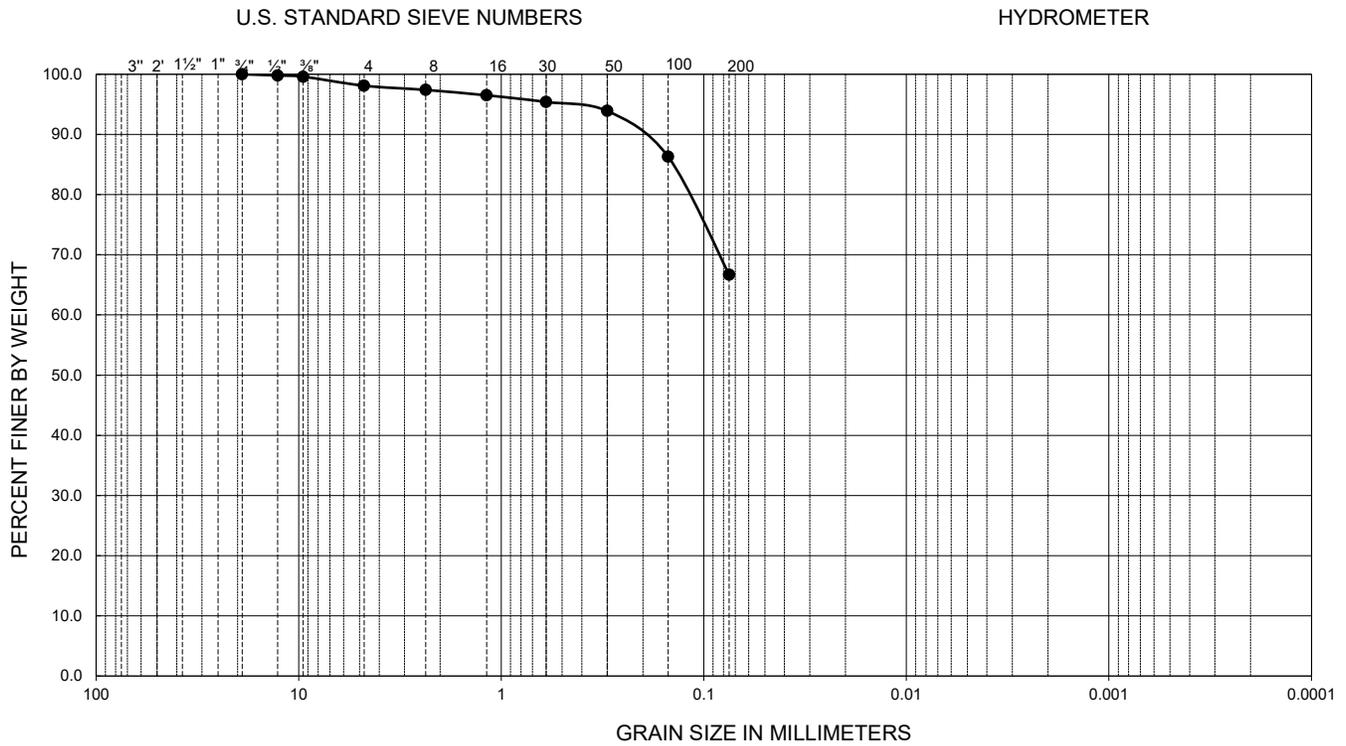
FIGURE B-15

GRADATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-10	2.0-3.5	53	23	30	--	--	--	--	--	66.7	CH

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Sandy fat CLAY
1.9	31.4	66.7	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

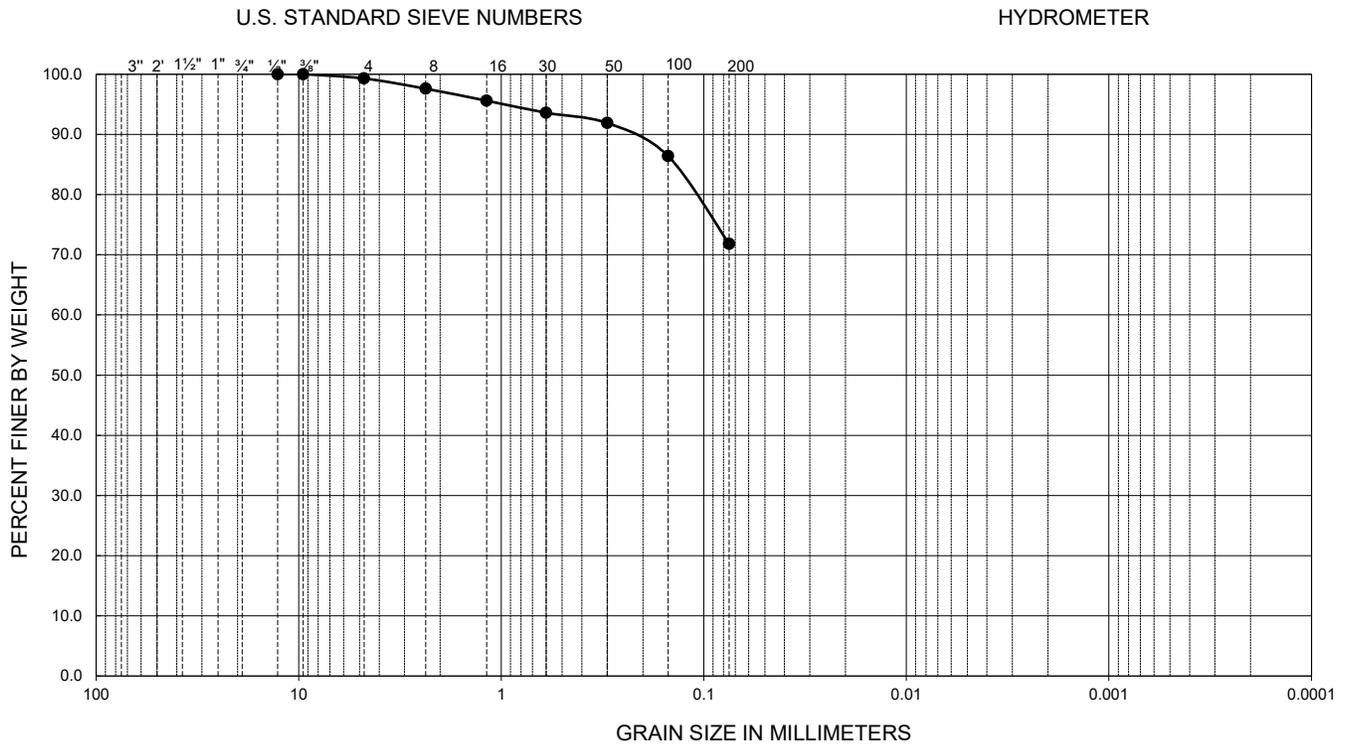
FIGURE B-16

**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D <sub>10</sub>	D <sub>30</sub>	D <sub>60</sub>	C <sub>u</sub>	C <sub>c</sub>	Passing No. 200 (%)	USCS
●	B-11	2.0-3.5	45	20	25	--	--	--	--	--	71.8	CL

Material Percent by Weight			Soil Type
Gravel	Sand	Fines	Lean CLAY with sand
0.7	27.5	71.8	

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

FIGURE B-17

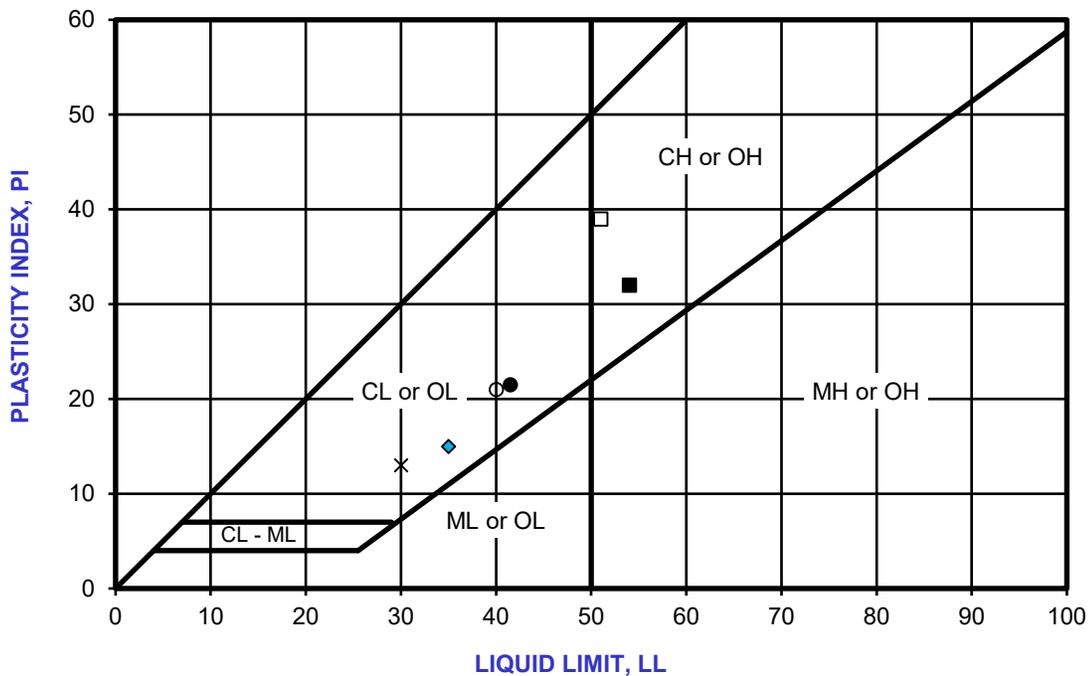
**GRADATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



SYMBOL	LOCATION	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS
●	B-1	5.0-6.5	42	20	22	CL	SC
■	B-1	20.0-20.8	54	22	32	CH	CH
◆	B-1	30.0-31.5	35	20	15	CL	CL
○	B-1	45.0-46.5	40	19	21	CL	
□	B-2	5.0-6.5	51	12	39	CH	CH
	B-2	25.0-26.5	NP	NP	NP	ML	SM
X	B-2	40.0-41.5	30	17	13	CL	CL
	B-2	50.0-51.5	NP	NP	NP	ML	

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH D 4318

FIGURE B-18



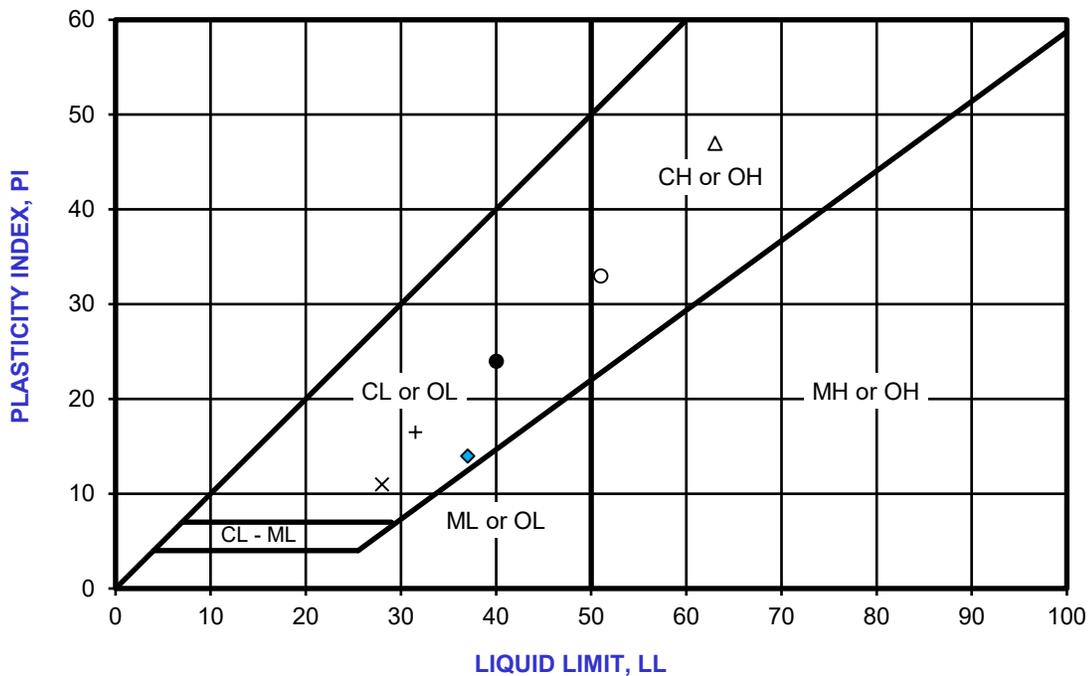
**ATTERBERG LIMITS TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA

304840001 12/2021

SYMBOL	LOCATION	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS
●	B-3	10.0-11.5	40	16	24	CL	CL
	B-3	35.0-36.5	NP	NP	NP	ML	SP-SM
◆	B-4	5.0-6.5	37	23	14	CL	CL
○	B-4	25.0-26.5	51	18	33	CH	SC
	B-5	30.0-31.5	NP	NP	NP	ML	SM
△	B-6	2.0-3.5	63	16	47	CH	CH
×	B-7	10.0-11.4	28	17	11	CL	SC
+	B-8	10.0-11.5	32	15	17	CL	SC

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH D 4318

FIGURE B-19



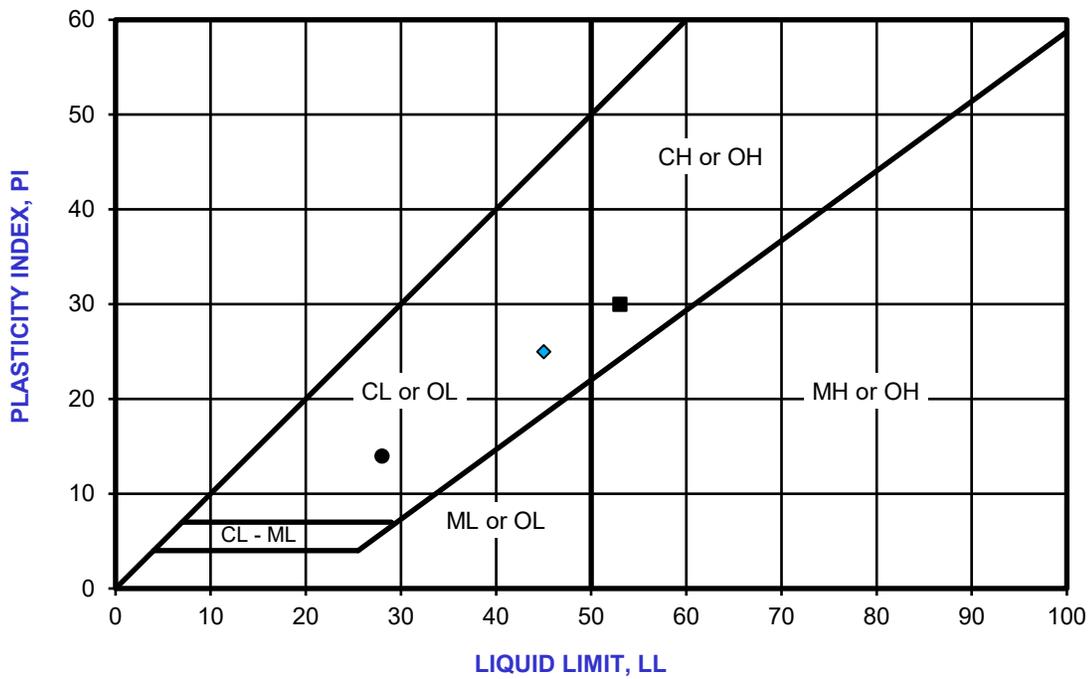
**ATTERBERG LIMITS TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA

304840001 12/2021

SYMBOL	LOCATION	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS
●	B-9	10.0-11.5	28	14	14	CL	CL
■	B-10	2.0-3.5	53	23	30	CH	CH
◆	B-11	2.0-3.5	45	20	25	CL	CL

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH D 4318

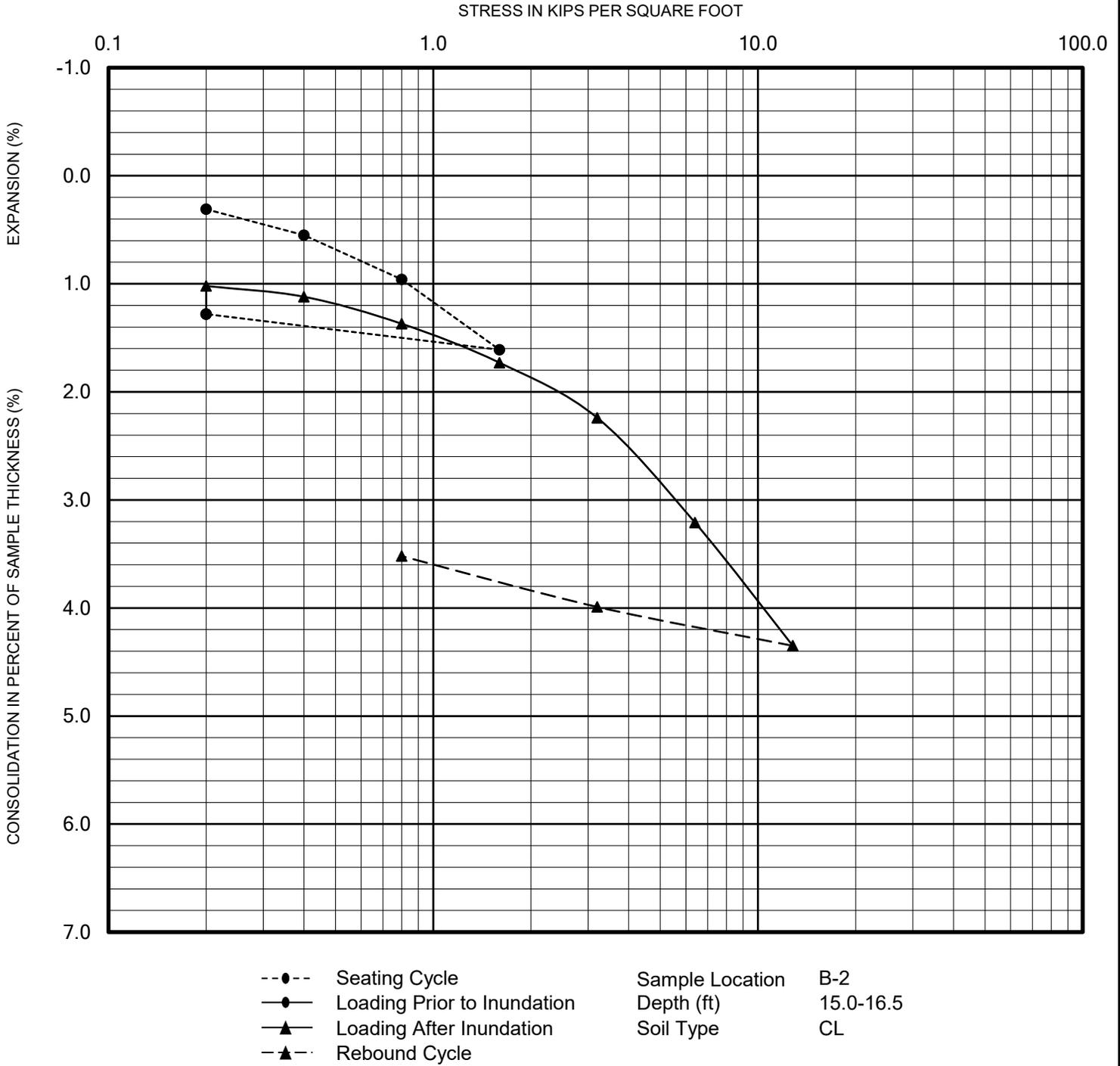
FIGURE B-20



**ATTERBERG LIMITS TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA

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PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

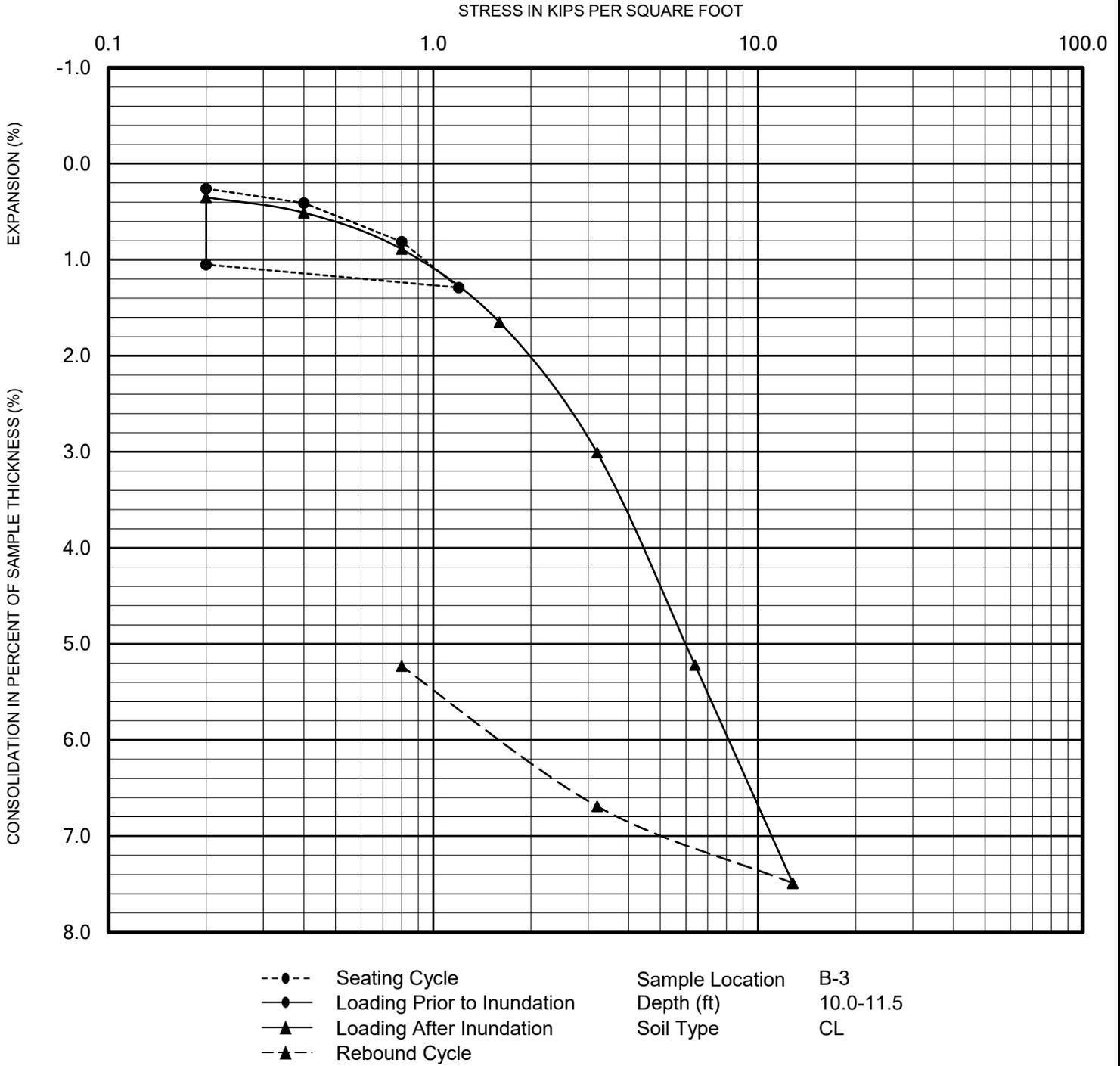
FIGURE B-21

CONSOLIDATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

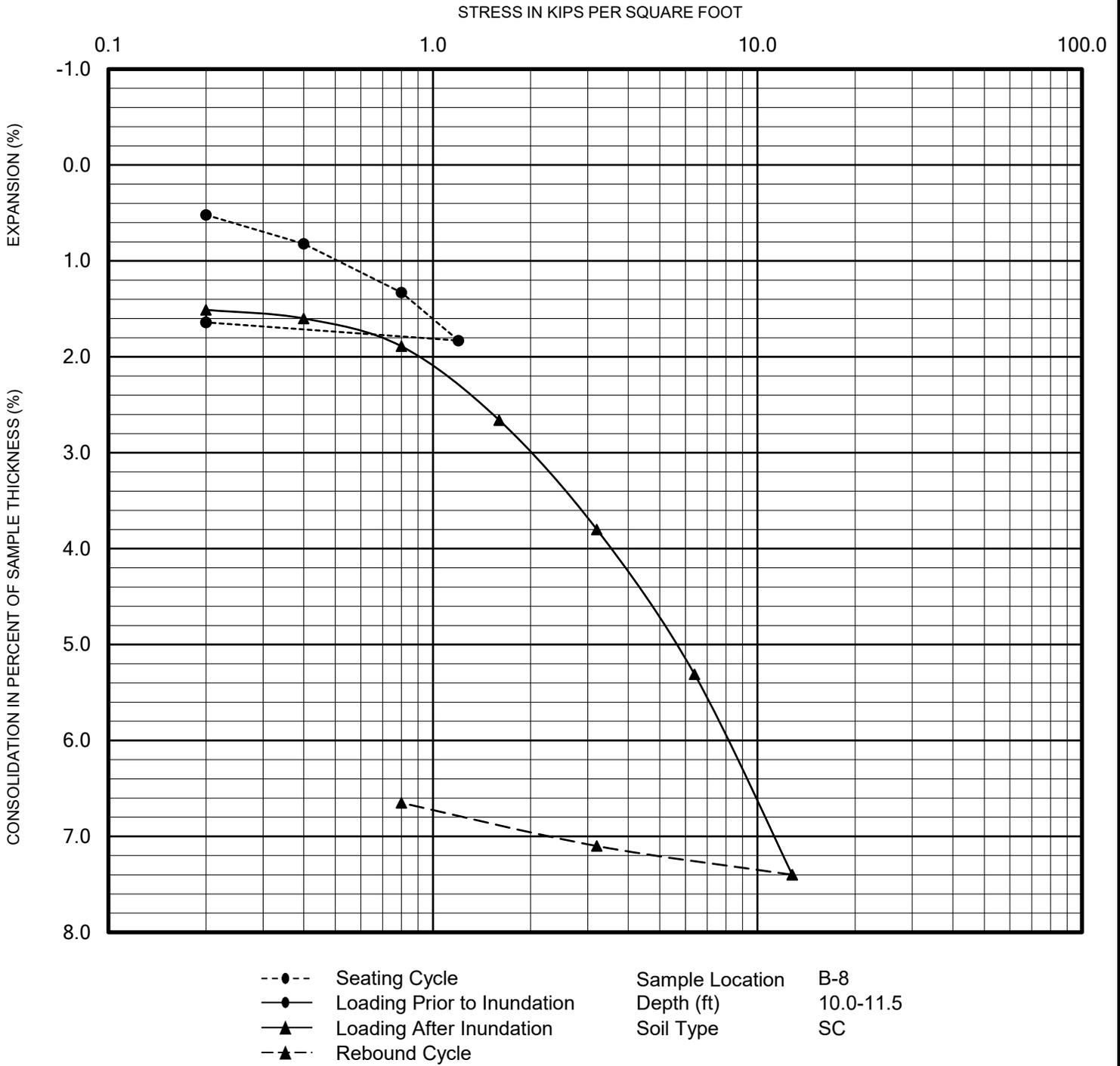
FIGURE B-22

CONSOLIDATION TEST RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

FIGURE B-23

**CONSOLIDATION TEST RESULTS**

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



304840001 12/2021

SAMPLE LOCATION	SAMPLE DEPTH (ft)	IN-PLACE MOISTURE (percent)	IN-PLACE DRY DENSITY (pcf)	FINAL MOISTURE (percent)	SURCHARGE (PSF)	SWELL POTENTIAL (percent)	EXPANSION POTENTIAL
B-2	5.0-6.5	26.6	86.3	36.0	60	10	High
B-4	5.0-6.5	16.6	104.3	19.8	60	0	Low
B-6	2.0-3.5	21.2	100.6	30.0	60	10	High
B-8	2.0-3.5	24.5	98.5	31.4	60	9	High
B-10	2.0-3.5	24.2	91.8	30.1	60	8	High

\* Negative number indicates collapse.

PERFORMED IN GENERAL ACCORDANCE WITH SECTION 1802.3.3 OF THE SOUTHERN NEVADA BUILDING CODE AMENDMENTS

RESULTS INTERPRETED IN ACCORDANCE WITH TABLE 1808.6.1.1 OF THE SOUTHERN NEVADA BUILDING CODE AMENDMENTS

**FIGURE B-24**

# APPENDIX C

## Chemical Test Results

## **APPENDIX C**

### **CHEMICAL TEST RESULTS**

The results of chemical tests are provided in this appendix.



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(702) 321-8315 Phone

(702) 597-2098 Fax

E-mail: veritaslabs@msn.com

---

CLIENT COMPANY NAME: Ninyo and Moore  
CLIENT PROJECT NAME: **Civic Center**  
CLIENT PROJECT NUMBER: 304840001  
VERITAS LAB ORDER ID: V21L007

---

**SAMPLE SUMMARY**

<b>CLIENT SAMPLE ID</b>	<b>VERITAS SAMPLE ID</b>	<b>MATRIX</b>	<b>DATE/TIME COLLECTED</b>	<b>DATE/TIME RECEIVED</b>
B-1 4-5	V21L007-01	Soil		12/1/21 9:30
B-3 7-8	V21L007-02	Soil		12/1/21 9:30
B-5 3-4	V21L007-03	Soil		12/1/21 9:30
B-7 2-5	V21L007-04	Soil		12/1/21 9:30
B-10 2-4	V21L007-05	Soil		12/1/21 9:30



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CLIENT COMPANY NAME: Ninyo and Moore  
 CLIENT PROJECT NAME: **Civic Center**  
 CLIENT PROJECT NUMBER: 304840001  
 VERITAS LAB ORDER ID: V21L007

**ANALYTICAL RESULTS**

CLIENT SAMPLE ID: **B-1 4-5** DATE/TIME SAMPLED:  
 VERITAS SAMPLE ID: V21L007-01 DATE/TIME RECEIVED: 12/1/21 9:30

**Matrix: Soil****Analysis: Soil Solubility/Corrosion Parameters**

PARAMETER	RESULT	UNITS	METHOD	DATE ANALYZED
pH	<b>7.50</b>	pH Units	EPA 9045 D	12/2/21
Redox Potential (ORP)	<b>237</b>	mV	SM 2580B	12/1/21
Soluble Sodium	<b>0.0027</b>	%	EPA 6010B	12/2/21
Soluble Sulfate	<b>0.092</b>	%	SM 4500-SO4 E	12/2/21
Soluble Sulfide	<b>&lt;0.50</b>	mg/Kg	SM 4500-S2-D	12/2/21
Total Soluble Sodium Sulfate	<b>0.0084</b>	%	Calculation	12/2/21
Total Soluble Salts (Solubility)	<b>0.11</b>	%	SM 2540C	12/2/21
Soluble Chloride	<b>0.0040</b>	%	SM 4500-Cl B	12/2/21



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CLIENT COMPANY NAME: Ninyo and Moore  
 CLIENT PROJECT NAME: **Civic Center**  
 CLIENT PROJECT NUMBER: 304840001  
 VERITAS LAB ORDER ID: V21L007

**ANALYTICAL RESULTS**

CLIENT SAMPLE ID: **B-3 7-8** DATE/TIME SAMPLED:  
 VERITAS SAMPLE ID: V21L007-02 DATE/TIME RECEIVED: 12/1/21 9:30

**Matrix: Soil****Analysis: Soil Solubility/Corrosion Parameters**

PARAMETER	RESULT	UNITS	METHOD	DATE ANALYZED
pH	<b>7.58</b>	pH Units	EPA 9045 D	12/2/21
Redox Potential (ORP)	<b>204</b>	mV	SM 2580B	12/1/21
Soluble Sodium	<b>0.0034</b>	%	EPA 6010B	12/2/21
Soluble Sulfate	<b>0.068</b>	%	SM 4500-SO4 E	12/2/21
Soluble Sulfide	<b>&lt;0.50</b>	mg/Kg	SM 4500-S2-D	12/2/21
Total Soluble Sodium Sulfate	<b>0.011</b>	%	Calculation	12/2/21
Total Soluble Salts (Solubility)	<b>0.092</b>	%	SM 2540C	12/2/21
Soluble Chloride	<b>0.0020</b>	%	SM 4500-Cl B	12/2/21



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CLIENT COMPANY NAME: Ninyo and Moore  
 CLIENT PROJECT NAME: **Civic Center**  
 CLIENT PROJECT NUMBER: 304840001  
 VERITAS LAB ORDER ID: V21L007

**ANALYTICAL RESULTS**

CLIENT SAMPLE ID: **B-5 3-4** DATE/TIME SAMPLED:  
 VERITAS SAMPLE ID: V21L007-03 DATE/TIME RECEIVED: 12/1/21 9:30

**Matrix: Soil****Analysis: Soil Solubility/Corrosion Parameters**

PARAMETER	RESULT	UNITS	METHOD	DATE ANALYZED
pH	<b>7.65</b>	pH Units	EPA 9045 D	12/2/21
Redox Potential (ORP)	<b>226</b>	mV	SM 2580B	12/1/21
Soluble Sodium	<b>0.013</b>	%	EPA 6010B	12/2/21
Soluble Sulfate	<b>0.92</b>	%	SM 4500-SO4 E	12/2/21
Soluble Sulfide	<b>&lt;0.50</b>	mg/Kg	SM 4500-S2-D	12/2/21
Total Soluble Sodium Sulfate	<b>0.040</b>	%	Calculation	12/2/21
Total Soluble Salts (Solubility)	<b>0.98</b>	%	SM 2540C	12/2/21
Soluble Chloride	<b>0.0025</b>	%	SM 4500-Cl B	12/2/21



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CLIENT COMPANY NAME: Ninyo and Moore  
 CLIENT PROJECT NAME: **Civic Center**  
 CLIENT PROJECT NUMBER: 304840001  
 VERITAS LAB ORDER ID: V21L007

**ANALYTICAL RESULTS**

CLIENT SAMPLE ID: **B-7 2-5** DATE/TIME SAMPLED:  
 VERITAS SAMPLE ID: V21L007-04 DATE/TIME RECEIVED: 12/1/21 9:30

**Matrix: Soil****Analysis: Soil Solubility/Corrosion Parameters**

PARAMETER	RESULT	UNITS	METHOD	DATE ANALYZED
pH	7.75	pH Units	EPA 9045 D	12/2/21
Redox Potential (ORP)	255	mV	SM 2580B	12/1/21
Soluble Sodium	0.0014	%	EPA 6010B	12/2/21
Soluble Sulfate	0.70	%	SM 4500-SO4 E	12/2/21
Soluble Sulfide	<0.50	mg/Kg	SM 4500-S2-D	12/2/21
Total Soluble Sodium Sulfate	0.0044	%	Calculation	12/2/21
Total Soluble Salts (Solubility)	0.89	%	SM 2540C	12/2/21
Soluble Chloride	0.0	%	SM 4500-Cl B	12/2/21



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CLIENT COMPANY NAME: Ninyo and Moore  
 CLIENT PROJECT NAME: **Civic Center**  
 CLIENT PROJECT NUMBER: 304840001  
 VERITAS LAB ORDER ID: V21L007

**ANALYTICAL RESULTS**

CLIENT SAMPLE ID: **B-10 2-4** DATE/TIME SAMPLED:  
 VERITAS SAMPLE ID: V21L007-05 DATE/TIME RECEIVED: 12/1/21 9:30

**Matrix: Soil****Analysis: Soil Solubility/Corrosion Parameters**

PARAMETER	RESULT	UNITS	METHOD	DATE ANALYZED
pH	7.74	pH Units	EPA 9045 D	12/2/21
Redox Potential (ORP)	259	mV	SM 2580B	12/1/21
Soluble Sodium	0.0056	%	EPA 6010B	12/2/21
Soluble Sulfate	0.19	%	SM 4500-SO4 E	12/2/21
Soluble Sulfide	<0.50	mg/Kg	SM 4500-S2-D	12/2/21
Total Soluble Sodium Sulfate	0.017	%	Calculation	12/2/21
Total Soluble Salts (Solubility)	0.21	%	SM 2540C	12/2/21
Soluble Chloride	0.0060	%	SM 4500-Cl B	12/2/21

# APPENDIX D

## Refraction Microtremor Survey Results

## APPENDIX D

### REFRACTION MICROTREMOR SURVEY RESULTS

Ninyo & Moore performed a refraction microtremor (ReMi) survey to obtain the shear wave velocity profile to a nominal depth of approximately 100 feet at the subject site to evaluate the seismic Site Class in general accordance with the 2018 International Building Code (ICC, 2018). The approximate length and orientation of the survey array are indicated on Figure 2.

A Geode 24-Channel Seismograph (Geometrics Inc.) was used for the ReMi surveying, with 4.5 Hertz (Hz) vertical component geophones spaced 10 feet apart for a total profile length of 230 feet. Approximately 20 records were collected, with a record length of 30 seconds (s) and 2 millisecond (ms) sample interval. The field data were digitally recorded in SEG-Y format, reviewed in the field for data quality, saved to a hard disk, and documented.

The ReMi seismic data were processed using SeisImager/SW seismic processing software. The dispersive characteristics of surface waves are used to evaluate the subsurface velocity at depth. Longer wavelength (that is, longer-period and lower-frequency) surface waves travel deeper and thus contain more information about deeper velocity structure. Shorter wavelength (shorter-period and higher-frequency) surface waves travel shallower and thus contain more information about shallower velocity structure. The dispersion is dependent on the material properties, such as surface wave velocity, relative material densities, and Poisson's ratio. An inversion is performed on the collected passive seismic shear wave records using to produce a model of the variation in shear wave velocities with depth with a convergence of model that obtained less than 5 percent root mean square error.

Shear wave data resolution generally decreases with depth, due to the loss of sensitivity of the dispersion curve to changes in shear wave velocity as depth increases. A figure showing our ReMi seismic modeling results is provided in this appendix. The layered model indicates our interpretation of the approximate changes in shear wave velocity vertically with depth across the surveyed location. The calculated average shear wave velocity to a depth of approximately 100 feet at the location of the geophone array was 1,357 feet per second. Based on this information, the findings of our subsurface exploration program, and the 2018 International Building Code, seismic Site Class C is characteristic for design purposes for the project.

### 304840001: Vs Model

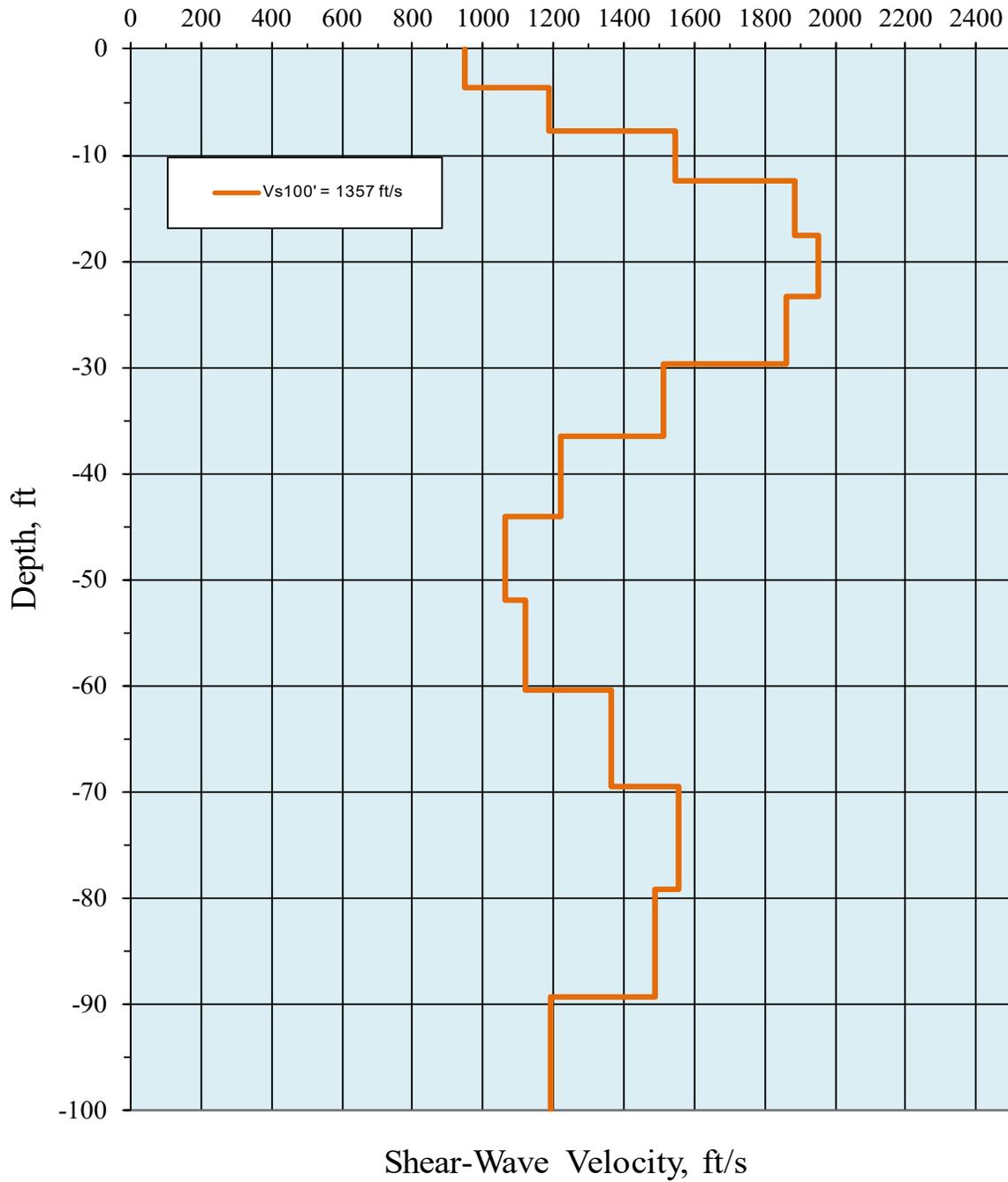
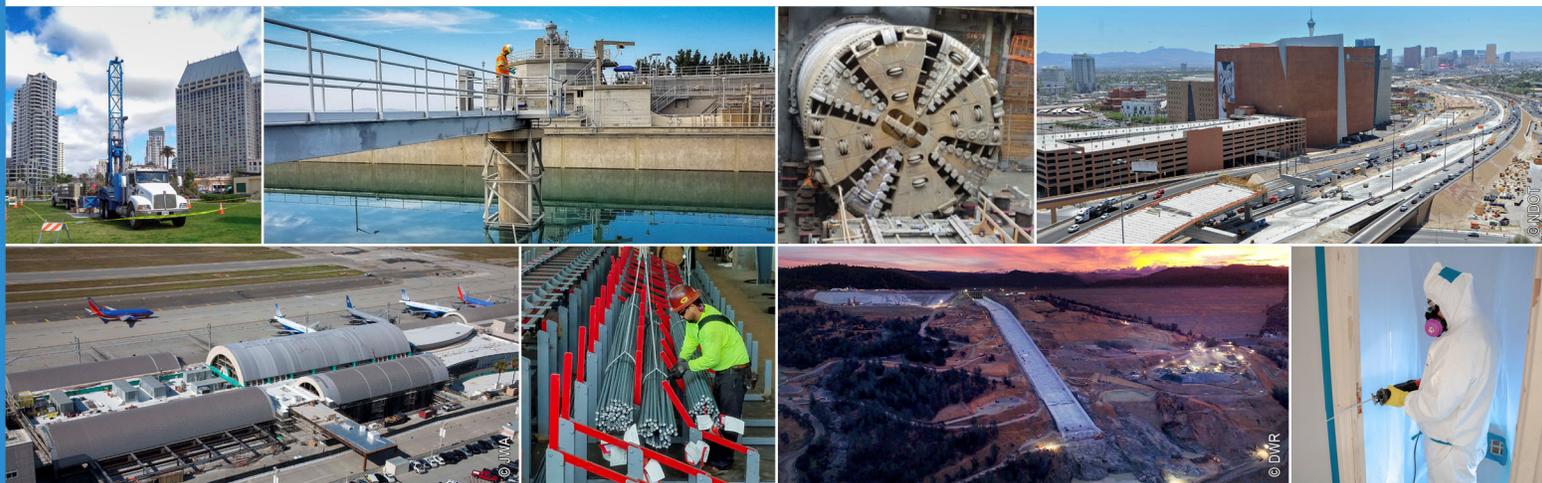


FIGURE D-1

#### REFRACTION MICROTREMOR SURVEY RESULTS

CIVIC CENTER BUILDING AND PLAZA  
MAIN STREET AND BONNEVILLE AVENUE, LAS VEGAS, NEVADA



6700 Paradise Road, Suite E | Las Vegas, Nevada 89119 | p. 702.433.0330

ARIZONA | CALIFORNIA | COLORADO | NEVADA | TEXAS | UTAH

[ninyoandmoore.com](http://ninyoandmoore.com)

**Ninyo & Moore**

Geotechnical & Environmental Sciences Consultants



**EXHIBIT G**  
**LIST OF WORK ESTIMATED BY CMAR**  
**TO EXCEED 1% OF COST OF WORK**

**Exhibit G**  
**Listing of Work Estimated by CMAR to Exceed 1% of Cost of Public Work**  
**(To be completed by CMAR and submitted with GMP Proposal)**

NAME OF CMAR: _____ CORE West, Inc.	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE	LICENSE NUMBER(S): 0006144B

In accordance with NRS 338.141, CMAR shall complete either Section 1 OR Section 2, AND Section 3 below.

<p><b>SECTION 1.</b>                  A description of the labor or portion of the work that the CMAR will <b>self-perform</b> in the box directly below.</p>
<p><b>DESCRIPTION OF LABOR OR PORTION OF THE WORK BEING <u>SELF-PERFORMED</u> BY CMAR</b></p>
<p>General Conditions</p>

OR

<p><b>SECTION 2.</b>                  Acknowledgment that the CMAR shall self-perform all work equal to or greater than 1 percent of the cost of the Public Work or \$50,000, whichever is greater, other than that being performed by a first tier Subcontractor listed in Section 3 below.</p>
<p>CMAR Initials: _____ <b>Note:</b> If CMAR initials here, <b>do not</b> complete Section 1</p>

**AND**

**SECTION 3.**  
 In accordance with NRS 338.141, CMAR shall name each first tier Subcontractor who will provide labor or a portion of the work to the CMAR for which the first tier Subcontractor will be paid an amount exceeding 1 percent of the cost of the Public Work or \$50,000, whichever is greater. Note: If additional space is needed, list the Subcontractors and sign the following page.

NAME OF SUBCONTRACTOR	LICENSE NUMBER(S) OF SUBCONTRACTOR	DESCRIPTION OF LABOR OR PORTION OF WORK BEING PERFORMED BY SUBCONTRACTOR
TAB Contractors, Inc.  <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE	#0021801	Demolition Earthwork Utilities
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		

**AUTHORIZED BY:** \_\_\_\_\_  
 Chris Laux, Project Director  
 \_\_\_\_\_  
 Signature

Date December 28, 2022

**Section 3. 1% Subcontractor List** (continued as necessary)

NAME OF SUBCONTRACTOR	LICENSE NUMBER(S) OF SUBCONTRACTOR	DESCRIPTION OF LABOR OR PORTION OF WORK BEING PERFORMED BY SUBCONTRACTOR
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> DVBE		

**AUTHORIZED BY:** \_\_\_\_\_  
 Signature Chris Laux, Project Director Date



# EXHIBIT H

## BASELINE PROJECT SCHEDULE

# Exhibit H



## CLV Downtown Civic Building & Plaza - GMP #1 Project Schedule

ID	Task Name	Duration	Start	Finish	2023
					Qtr 1   Qtr 2   Qtr 3   Qtr 4
0	<b>CLV Downtown Civic Building &amp; Plaza - GMP #1 Project Schedule</b>	<b>147 d</b>	<b>Wed 3/8/23</b>	<b>Tue 8/1/23</b>	
1	<b>Permit Milestones</b>	<b>55 d</b>	<b>Wed 3/8/23</b>	<b>Wed 5/24/23</b>	
2	<i>Phase 1 - Demo and Grading Permit Issued</i>	<i>0 d</i>	<i>Wed 3/8/23</i>	<i>Wed 3/8/23</i>	<i>3/8</i> ◆
4	<i>Offsite Permit Received (Sewer Line Relocation)</i>	<i>0 d</i>	<i>Mon 4/3/23</i>	<i>Mon 4/3/23</i>	<i>4/3</i> ◆
3	<i>Dewatering Permit Received</i>	<i>0 d</i>	<i>Wed 5/24/23</i>	<i>Wed 5/24/23</i>	<i>5/24</i> ◆
9	<b>NTP Milestones</b>	<b>0 d</b>	<b>Wed 3/8/23</b>	<b>Wed 3/8/23</b>	<i>3/8</i> ◆
10	<i>GMP #1 NTP Issued</i>	<i>0 d</i>	<i>Wed 3/8/23</i>	<i>Wed 3/8/23</i>	<i>3/8</i> ◆
22	<b>Milestones by Others</b>	<b>0 d</b>	<b>Wed 3/8/23</b>	<b>Wed 3/8/23</b>	<i>3/8</i> ◆
24	<i>Overhead Lines (NVE &amp; Qwest) Relocation Complete (By Others)</i>	<i>0 d</i>	<i>Wed 3/8/23</i>	<i>Wed 3/8/23</i>	<i>3/8</i> ◆
25	<i>Removal of Site Items (By Others) - See Basis of Proposal</i>	<i>0 d</i>	<i>Wed 3/8/23</i>	<i>Wed 3/8/23</i>	<i>3/8</i> ◆
148	<b>Procurement</b>	<b>81 d</b>	<b>Thu 3/9/23</b>	<b>Fri 6/30/23</b>	
255	<b>Construction</b>	<b>97 d</b>	<b>Thu 3/16/23</b>	<b>Tue 8/1/23</b>	
256	<b>Phase 1</b>	<b>97 d</b>	<b>Thu 3/16/23</b>	<b>Tue 8/1/23</b>	
258	<b>Rough Site Construction - Demolition, Dewatering, Sewer Relocation, Mass Grading</b>	<b>97 d</b>	<b>Thu 3/16/23</b>	<b>Tue 8/1/23</b>	
257	<i>Phase 1 Complete</i>	<i>0 d</i>	<i>Tue 8/1/23</i>	<i>Tue 8/1/23</i>	<i>8/1</i> ◆

Task Summary Deadline Progress

Milestone Project Summary Critical



## EXHIBIT I

# PREVAILING WAGE RATES

**EXHIBIT I**  
**STATE OF NEVADA**

STEVE SISOLAK  
GOVERNOR

TERRY REYNOLDS  
DIRECTOR

BRETT HARRIS  
LABOR COMMISSIONER



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FAX (702) 486-2660

OFFICE OF THE LABOR COMMISSIONER  
1818 COLLEGE PARKWAY, SUITE 102  
CARSON CITY, NV 89706  
PHONE: (775) 684-1890  
FAX (775) 687-6409

## 2023 PREVAILING WAGE RATES CLARK COUNTY

**DATE OF DETERMINATION: October 1, 2022**

**APPLICABLE FOR PUBLIC WORKS PROJECTS OVER \$100,000 BID/AWARDED  
OCTOBER 1, 2022 THROUGH SEPTEMBER 30, 2023**

Pursuant to Nevada Revised Statutes (NRS) section 338.030(9)(a), "If the contract for a public work: (a) Is to be awarded pursuant to a competitive bidding process, the prevailing wages in effect at the time of the opening of the bids for a contract for a public work must be paid until the completion or termination of the contract or for the 36 months immediately following the date on which the bids were opened, whichever is earlier." For contracts not awarded pursuant to competitive bidding, please see NRS section 338.030(9)(b). However, if a project exceeds 36 months new wage rates may apply pursuant to NRS section 338.030(9)(10). Prevailing Wage Rates may be adjusted based on Collective Bargaining Agreements (CBA's) and adjustments to those agreements. (See NRS 338.030)

**PREVAILING WAGE DETERMINATIONS** - NRS 338.030 subsection 7, the wages so determined must be:

- (a) Issued by the Labor Commissioner on October 1 of the odd-numbered year in which the survey was conducted and, except as otherwise provided in subsection 8, remain effective for 2 years after that date; and
- (b) Made available by the Labor Commissioner to any public body which awards a contract for any public work.

Senate Bill 243 passed during the 80th Nevada Legislative Session (2019) and set forth in NRS section 338.025, now requires the Labor Commissioner to calculate the Prevailing Wage Rates by region. NRS section 338.025 Prevailing wage regions. For the purpose of determining the prevailing rate of wages pursuant to NRS section 338.030, four prevailing wage regions are hereby established in this State as follows:

1. The Washoe Prevailing Wage Region consisting of Washoe County;
2. The Northern Rural Prevailing Wage Region consisting of Carson City and the counties of Churchill, Douglas, Elko Eureka, Humboldt, Lander, Lyon, Mineral, Storey, Pershing and White Pine;
3. The Clark Prevailing Wage Region consisting of Clark County; and
4. The Southern Rural Prevailing Wage Region consisting of the counties of Esmeralda, Lincoln and Nye.

**OBJECTIONS TO PREVAILING WAGE DETERMINATIONS** – NRS section 338.030 subsection 2. Objections to the Prevailing Wage Determinations must be submitted within 30 days after the Prevailing Wage Determinations are issued.

Pursuant to NRS section 338.030 subsection 8, the Labor Commissioner will review the prevailing wage rates in each even-numbered year to determine if adjustments should be made.

**As Amendments/Revisions are made to the wage rates, they will be posted on the website for each respective Region. Please review regularly for any Amendments/Revisions that are posted or contact our offices directly for further assistance.**

<a href="#">Air Balance Technician .....</a>	<a href="#">4</a>
<a href="#">Alarm Installer.....</a>	<a href="#">5</a>
<a href="#">Boilermaker .....</a>	<a href="#">7</a>
<a href="#">Bricklayer.....</a>	<a href="#">8</a>
<a href="#">Carpenter.....</a>	<a href="#">10</a>
<a href="#">Cement Mason .....</a>	<a href="#">13</a>
<a href="#">Electrician – Communication Technician .....</a>	<a href="#">16</a>
<a href="#">Electrician - Lineman .....</a>	<a href="#">18</a>
<a href="#">Electrician – Neon Sign .....</a>	<a href="#">20</a>
<a href="#">Electrician - Wireman.....</a>	<a href="#">21</a>
<a href="#">Elevator Constructor .....</a>	<a href="#">23</a>
<a href="#">Fence Erector .....</a>	<a href="#">25</a>
<a href="#">Field Soils and Material Tester .....</a>	<a href="#">26</a>
<a href="#">Flagperson.....</a>	<a href="#">27</a>
<a href="#">Floorcoverer .....</a>	<a href="#">28</a>
<a href="#">Glazier .....</a>	<a href="#">30</a>
<a href="#">Highway Striper .....</a>	<a href="#">32</a>
<a href="#">Hod Carrier-Brick Mason .....</a>	<a href="#">33</a>
<a href="#">Hod Carrier – Plasterer Tender .....</a>	<a href="#">34</a>
<a href="#">Ironworker.....</a>	<a href="#">36</a>
<a href="#">Laborer .....</a>	<a href="#">39</a>
<a href="#">Mechanical Insulator.....</a>	<a href="#">43</a>
<a href="#">Millwright.....</a>	<a href="#">45</a>
<a href="#">Operating Engineer .....</a>	<a href="#">47</a>
<a href="#">Operating Engineer – Cranes, Piledriving and Hoisting Equipment.....</a>	<a href="#">48</a>
<a href="#">Operating Engineer – Surveyor .....</a>	<a href="#">49</a>
<a href="#">Operating Engineer – Tunnel.....</a>	<a href="#">49</a>
<a href="#">Painter .....</a>	<a href="#">52</a>
<a href="#">Piledriver (Non-Equipment) .....</a>	<a href="#">54</a>
<a href="#">Plasterer .....</a>	<a href="#">56</a>
<a href="#">Plumber/Pipefitter .....</a>	<a href="#">58</a>
<a href="#">Refrigeration .....</a>	<a href="#">60</a>
<a href="#">Roofer.....</a>	<a href="#">62</a>
<a href="#">Sheet Metal Worker .....</a>	<a href="#">65</a>
<a href="#">Sprinkler Fitter .....</a>	<a href="#">66</a>
<a href="#">Taper .....</a>	<a href="#">67</a>
<a href="#">Tile/Terrazzo Worker/Marble Mason .....</a>	<a href="#">69</a>
<a href="#">Traffic Barrier Erector .....</a>	<a href="#">71</a>
<a href="#">Truck Driver .....</a>	<a href="#">72</a>
<a href="#">Well Driller .....</a>	<a href="#">73</a>
<b>Group Classification</b>	
<a href="#">Labor Group Classifications.....</a>	<a href="#">74</a>
<a href="#">Operating Engineers Classifications .....</a>	<a href="#">77</a>
<a href="#">Truck Driver Group Classifications .....</a>	<a href="#">90</a>

**NRS section 338.010 subsection (25) "Wages" means:**

- a) The basic hourly rate of pay; and
- b) The amount of pension, health and welfare, vacation and holiday pay, the cost of apprenticeship training or other similar programs or other bona fide fringe benefits which are a benefit to the worker.

**NRS section 338.035 Bona Fide Fringe Benefits** - Discharge of part of obligation of contractor or subcontractor engaged on public work to pay wages by making certain contributions in name of workman. "Bona fide fringe benefit" means a benefit in the form of a contribution that is made not less frequently than monthly to an independent third party pursuant to a fund, plan or program: (a) Which is established for the sole and exclusive benefit of a worker and his or her family and dependents; and (b) For which none of the assets will revert to, or otherwise be credited to, any contributing employer or sponsor of the fund, plan or program. The term includes, without limitation, benefits for a worker that are determined pursuant to a collective bargaining agreement and included in the determination of the prevailing wage by the Labor Commissioner pursuant to NRS section 338.030.

Please see NRS sections 338.010, 338.020, and 338.035 and Nevada Administrative Code (NAC) sections 338.0097 and 338.092 through 338.100 for further details on "Bona fide fringe benefits" and reporting requirements and exceptions.

**Job Descriptions for Recognized Classes of Workers**

Regarding job descriptions for public works projects, please take notice of the following:

1. The job description links have been redacted to include ONLY the scope of work for the craft.
2. Pursuant to NAC section 338.0095(1)(a) - A worker employed on a public work must be paid the applicable prevailing rate of wage for the type of work that the worker actually performs on the public work and in accordance with the recognized class of the worker.
3. The work description for a particular class is not intended to be jurisdictional in scope.
4. Any person who believes that a type of work is not classified, or who otherwise needs clarification pertaining to the recognized classes or job descriptions, shall contact the Labor Commissioner in writing for a determination of the applicable classification and pay rate for a particular type of work.
5. The job descriptions set forth or referenced herein supersede any, and all descriptions previously agreed upon by the Labor Commissioner in any settlement agreements or stipulations arising out of contested matters.
6. The following specific provisions, where applicable, shall prevail over any general provisions of the job descriptions:
  - Amendments to the prevailing wage determinations.
  - Group Classifications and/or descriptions recognized by the Labor Commissioner and included with wage determinations for a particular type of work in a particular county.

**Zone Rates**

The zone rate has been added to each applicable craft.

**Premium Pay** Premium pay for hours worked in excess of a shift of 8 hours or 12 hours, or such other time increment set forth in the Collective Bargaining Agreement or on a weekend or holiday.

**Craft: AIR BALANCE TECHNICIAN (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Air Balance Technician Journeyman.....	83.66
Air Balance Technician-Foreman.....	89.05
Air Balance Technician-General Foreman.....	94.36

**ADD ZONE RATE**

In addition to SHEET METAL WORKER rates add the applicable amounts per hour, calculated on a radius from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 30 miles	\$0.00
Zone 2	31 to 50 miles	\$2.50
Zone 3	51 to 100 miles	\$3.50 (including Laughlin)
Zone 4	Over 100 miles	\$5.00

**ADD PREMIUM PAY**

All work performed outside the regular working hours and performed during the regular work week shall be at one and one-half (1½) times the straight time rate of pay. Sunday and Holidays shall be paid at double (2) times the straight time of pay.

**RECOGNIZED HOLIDAYS**

New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday following Thanksgiving Day, Christmas Eve Day, Christmas Day, or days locally observed as such, and Sunday shall be recognized as holidays.

**JOB DESCRIPTION**: Excerpt from Sheet Metal Local 88 Collective Bargaining Agreement

(a) Manufacture, fabrication, assembling, handling, erection, installation, dismantling, conditioning, adjustment, alteration, repairing and servicing of all ferrous or nonferrous metal work and all other materials used in lieu thereof and of all HVAC systems, air veyor systems, exhaust systems, and air-handling systems regardless of material used including the setting of all equipment and all reinforcements in connection therewith; (b) all lagging over insulation and all duct lining; (c) testing and balancing of all air handling equipment and duct work; (d) the preparation of all shop and field sketches whether manually drawn or computer assisted used in fabrication and erection, including those taken from original architectural and engineering drawings or sketches; (e) metal exterior wall systems, metal roofing and underlayment regardless of material used; (f) any and all auditing, commissioning and testing, of all HVAC in connection with a building rating methods; detailing, shop fabrication, field installation and performance oriented tasks and (g) all other work included in the jurisdictional claims of International Association of Sheet Metal, Air, Rail and Transportation Workers.

**Craft: ALARM INSTALLER (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Alarm Installer.....	74.70
Alarm Installer-Foreman.....	80.53
Alarm Installer-General Foreman.....	86.37

**ADD ZONE RATE**

In addition to Alarm Installer rates add the applicable amounts per hour, based on a radius from the intersection of Main and Fremont in Las Vegas:

Zone 1	0 to 25 miles	\$0.00
Zone 2	25 to 55 miles	\$2.50
Zone 3	56 to 85 miles	\$3.50
Zone 4	86 miles and over	\$4.50

**ADD PREMIUM PAY**

One and one half (1 and 1/2) times the regular straight time rate of pay and one and one half (1 and 1/2) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over eight (8) hours worked in a single day or a shift.

Double (2x) the regular straight time hourly rate and double (2x) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over twelve (12) hours in a single day or shift.
2. For any hours worked on a Saturday, Sunday, or Holidays from midnight to midnight.
3. For all hours worked by an employee in a week in which the employer has not established a regular five-day work week daily shift.

**SHIFT DIFFERENTIAL**

1. Second Shift (Swing) will be paid a premium of 15% for all hours worked.
2. Third Shift (Graveyard) will be paid a premium of 30% for all hours worked.

**HIGH TIME**

All employees working within 5 feet of a direct fall of sixty (60) feet or more shall be paid an additional one-half (1/2) the straight time hourly rate.

**FULL PROTECTIVE GEAR**

Employees required to wear both full protective clothing (coveralls, bootees, gloves, caps, etc.) and full face respirator shall receive ten percent (10%) above their rate of pay.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday following Thanksgiving Day, Christmas Day

**JOB DESCRIPTION:** Excerpt from Agreement between NECA and Local Union 357, IBEW

Installation, maintenance, service and testing of all apparatus, fire alarm systems and interconnection cables, including fiber optics and/or ethereal aid associated with systems utilizing the transmission including ultra-high frequencies, video, and digital for the commercial, education, security and

entertainment purposes for the following: TV monitoring and surveillance, background music, intercom and telephone interconnect, inventory control systems, microwave transmission, Halon systems, CO2, FM200, intergen, also all other suppression systems, multi-media, multiplex, PCM (Pulse Code Modulation), SCADA (Supervisory Control and Data Acquisition), nurse call system, radio page, school intercom and sound, burglar alarms and low voltage master clock systems, and data systems that transmit or receive information and control and all other systems which are intrinsic to the above listed systems.

Installations of raceway systems are not covered under the terms of this Agreement (excluding Ladder Rack for the purpose of the above listed systems). Chases and/or nipples (not to exceed 10 ft.) may be installed on open wiring systems. Removal and discarding of all packaging and waste materials related to the above scope of work, excluding demolition waste.

### **Senior Technician**

Pull cable, install and trim devices, terminate loops, circuits or other data gathering points. Terminate energized main control panels, racks or other head end equipment as well as test all circuits from the field to the main control panels and/or equipment. A senior technician will supervise and coordinate all work under this Agreement.

### **Installer Technician / Installer Technician**

Pull cable, trim devices, terminate loops, circuits or other data gathering points. Terminate non-energized main control panels, racks, or other head end equipment, as well as test all circuits from the field device to the non-energized panels and / or equipment. The Installer Technicians and Installer Technician Apprentices shall not energize, or work on any energized circuits, loops or equipment, except under the direction of the onsite Senior Technician.

Craft: BOILERMAKER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Boilermaker.....65.94

**BOILERMAKER**, includes but is not limited to:

1. Constructing, assembling, maintaining and repairing stationary steam boilers and boiler house auxiliaries;
2. Aligning structures or plate sections to assemble boiler frame tanks or vats;
3. Assisting in the testing of assembled vessels, directing cleaning of boilers and boiler furnaces;
4. Inspecting and repairing boiler fittings, including, without limitation, safety valves, regulators, automatic-control mechanisms, water columns and auxiliary machines.

**ADD PREMIUM PAY**

Premium pay for hours worked in excess of a shift of 8 hours or 12 hours or such other time increment set forth in the Collective Bargaining Agreement or on a weekend or holiday.

**Craft: BRICKLAYER (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Bricklayer.....64.13

**ADD ZONE PAY**

In addition to BRICKLAYER rates add the applicable amounts per hour, calculated based on a road of over fifty (50) miles from the City Hall of Las Vegas, Nevada:

Zone 1	0-40 Miles	\$0.00
Zone 2	41-50 Miles	\$2.50
Zone 3	51-70 Miles	\$5.00
Zone 4	Over 70 Miles	\$7.50

The area within the city limits of Boulder City and Primm, Nevada shall be considered free zones.

**ADD PREMIUM PAY****Section A.**

Hours. The standard workday shall consist of eight (8) continuous hours of work between the hours of 5:30 a.m. and 4:30 p.m.

**Section B.**

Overtime All work in excess forty (40) hours during the established work week shall be paid at the rate of one and one half (1-1/2) times the hourly base wage rate in effect. Employees will be paid one and one-half (1-1/2) times the hourly wage rate for all hours worked over eight (8) in a single day, and double time (2x) after ten (10) hours in a single day.

1. Employees will be paid double time for hours worked on Union recognized Holidays.
2. Employees will be paid double time on Sundays.
3. Work performed on Saturday will be paid at one and one-half (1-1/2) times the regular wage rate, in accordance with Article XVII, Section D. Work performed on Saturdays in excess of eight (8) hours shall be paid at double the applicable hourly rate.

**Section C.**

1. The first shift shall be the regular day shift insofar as computing wage payments is concerned, and the first day shift shall work a regular eight-hour shift, with a one half-hour unpaid lunch period midway through the shift. The normal starting time for the first shift shall be between 5:30-10:00 a.m.
2. If two work shifts are established, the second shift shall consist of eight (8) hours of continuous work, with a one half-hour unpaid lunch period midway through the shift. Employees working on the second shift shall receive eight hours times the basic straight time rate plus an additional fifty cents (\$.50) per hour for each of those eight hours.
3. If three work shifts are established, the third shift shall consist of seven hours of continuous work, plus one half-hour unpaid lunch period midway through the shift. Employees working on the third shift shall receive the basic straight time rate plus three dollars and twenty-five cents (\$3.25) for each of those seven hours.

4. Time worked in excess of seven hours on the third shift shall be paid at the appropriate overtime rate.

### **RECOGNIZED HOLIDAYS**

Holidays. The Employer agrees to recognize the following holidays: New Year's Day, Presidents' Day, Memorial Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day, Friday following Thanksgiving Day, and Christmas Day. Any holiday falling on a Sunday will be observed on the Monday following, and any holiday falling on a Saturday will be observed on the preceding Friday.

**Job Descriptions** Excerpt from Bricklayer and Allied Craftworkers Local Union No. 13 Collective Bargaining Agreement

Brick Masonry shall consist of, but not be limited to, the following work procedures and installation of the following materials:

A. The laying of brick made from any material in, under or upon any structure or form of work where bricks are used, whether in the ground, or over its surface, or beneath water; in commercial and residential buildings, rolling mills, iron works, blast or smelter furnaces, lime or brick kilns; in mines or fortifications, and in all underground work, such as sewers, telegraph, electric and telephone conduits; including the installation of substitutes for brick such as all carbon materials, Karbate, Impervite or mixtures, all acid resistant materials, all terra cotta and porcelain materials, except where the foregoing materials are manufactured to substitute for tile as provided for under the category of Section 8, C, of this Code.

B. All cutting of joints, pointing, cleaning and cutting of brick walls, fireproofing, block-arching, terra cotta cutting and setting, the laying and cutting of all tile plaster, mineral-wool, cork blocks and glass masonry, or any substitute for above materials, the laying of all pipe sewers or water mains and the filling of all joints on the same when such sewers or conduits are of any vitreous material, burnt clay or cement, or any substitute material used for the above purpose, the cutting, rubbing and grinding of all kinds of brick and the setting of all cut stone trimmings on brick buildings, and the preparation and erection of plastic, castables or any refractory materials.

C. Cleaning, grouting, pointing, and other work necessary to achieve and complete the work under the foregoing categories; all waterproofing and black mastic waterproofing, silicone and/or substitutes sandwiched between masonry units in the interior of the wall.

D. All terra cotta called unit tile in sizes over 6"x12" regardless of method of installation; all quarry tile over 9"x9"x1 1/4" in size; split brick or quarry tile or similar material if bedded and jointed with one operation. The bedding, jointing, and pointing of the above materials shall be the work of the craft installing same.

E. All burnt clay extruded cellular products regardless of trade name or method of installation when used as a veneer on structures; all clay products known as terra cotta tile, unit tile, ceramic veneer and machine-made terra cotta and like materials in sizes larger than 6"x12", regardless of the method of installation. Where the preponderance of material to be installed is of the above size, and when material of lesser sizes is to be used in connection therewith, the bricklayers shall install all such materials. Brick paving comes under bricklayers' trade classification.

F. The preparation, setup, calibration, operation, cleaning, and routine maintenance of any mechanical devices or robotics used to install masonry units and materials.

**Craft: CARPENTER (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Carpenter Journeyman.....	70.01
Carpenter Welder .....	71.01
Carpenter Foreman.....	74.46
Carpenter General Foreman.....	79.36

**ADD ZONE RATE**

In addition to CARPENTER rates add the applicable amounts per hour, calculated from Maryland Parkway and Charleston Boulevard, Las Vegas:

Zone 1	0 to 40 Miles	\$0.00
Zone 2	40 to 60 Miles	\$2.50
Zone 3	Over 60 Miles	\$4.25
	Colorado River Region	\$2.00

**ADD PREMIUM PAY**

First two (2) hours outside the regular constituted shift shall be at the rate of time and one-half (1½X).

Saturdays up to the first ten (10) hours shall be at the rate of time and one-half (1½X). All additional hours and Sundays and holidays shall be the rate of double time (2X). When working on Sundays and holidays, there will be one dollar and fifty cents (\$1.50) per hour additional paid to Pension Annuity.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, 4th of July, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, Christmas Day.

**JOB DESCRIPTION** Excerpt from Southwest Regional Council of Carpenters and Affiliated Local Unions Master Labor Agreement

200. Building, heavy highway, and engineering construction, including the construction of, in whole or in part, or improvement or modification thereof, including any structure or operations which are incidental thereto, the assembly, operation, maintenance and repair of equipment, and facilities, used in connection with the performance of the aforementioned work and services and including without limitation the following types or classes of work.

201. Street and highway work, elevated highways, viaducts, bridges, abutments, retaining walls, subways, water supply, water development, reclamation, irrigation, draining and flood control projects, water mains, pipelines, sanitation and sewer projects, dams, aqueducts, canals, reservoirs, intakes, channels, levees, dikes, revetments, foundations, pile driving, piers, locks, dikes rivers and harbor projects, breakwaters, jetties, dredging, tunnels and building inspection. The handling, cleaning, erection, installation and dismantling of machinery, equipment and all work on robotics, included but not limited to rigging, handling, installation, maintenance, programming and the use of all stationary and/or portable robots. This shall include the use of all robots used in any industry, including the nuclear field.

202. The construction, erection, alteration, repair, modification, demolition, addition or improvement, in whole or in part, of any building structure, including oil or gas refineries and incidental structures,

solar energy installations and appurtenances which are incidental thereto, or the installation, operation, maintenance and repair equipment, and other facilities used in connection with the performance of such building construction except where such structures are an incidental or supplemental part of highway and engineering construction, as defined in this Section.

203. The Contractor shall construct all wood panel forms, and frame walls to be used on the jobsite for a specific project and such work shall be performed only by carpenters under the terms of this Agreement.

204. Any wood panel forms that are constructed by the carpenters under the provisions of this Agreement may be reused on any jobsite by any Contractor.

205. Any modifications of wood panel forms shall be performed only under the provisions of this Agreement.

206. The provisions of this Agreement shall apply to all standard manufactured commercial brand forms for the placement of concrete where field assembly and disassembly is required. The installation, stripping, and disassembly of forms, which may be reused on any jobsite by any contractor and shoring, will be in accordance with the provisions of this Agreement.

207. This Agreement shall cover all work in connection with Hico and similar type beams including, but not limited to the unloading, carrying, spotting and stacking the initial delivery, the installation, and stripping and removing of Hico shores.

208. This Agreement shall cover all work in connection with Plywood Decking including, but not limited to, the carrying, stacking, installation, and removal.

209. This Agreement shall cover all work in connection with Beam Sides and Beam Soffits, including, but not limited to the cutting, setting, removal, relocation and stacking of Beam Sides and Soffits, bracing and pads.

210. This Agreement shall cover all concrete form work, including, but not limited to, the fabrication, constructing, placing, erection, rigging and hoisting, stripping and removing of all forms and the operation of the fork lift, Leod, Pettibone or mobile equipment to perform all of the above work. This agreement also covers concrete floor polishing.

211. This Agreement shall cover all work in connection with precast, prestressed concrete stone or fabricated units, including, but not limited to, lightweight precast, GFRC, Stone Panels (excluding solid Marble and Granite), Dryvit Exterior Insulating Finish Systems, (EFIS) or any other system of panels that is attached to the interior or exterior of any building or structure; any pre-fabricated concrete stone or imitation stone included as part of the exterior wall system; and any prestressed or precast structural framing members, columns, lintels, and beams and metal studs in reference to all the above work. This Agreement shall include theming work utilizing the materials mentioned above. This Agreement shall cover all types of exhibit work traditionally performed by carpenters.

212. The laying out of all work and operation of all tools and equipment for cutting, handling, assembling and fabrication whether performed at the jobsite or a panelization compound of any and all structural members, including but not limited to those required for pre-fabricated flat curtain wall panels and continuous aesthetic trims or "pop-outs", i.e., cornice work and/or horizontal and vertical banding of any type where such metal framing must be added (to the flat panel) to minimize overall EFIS foam thicknesses and thereby comply with local codes for EFIS curtain walls.

213. Pre-fabrication of materials outside this agreement is permissible under the following situations:

213.1 Custom or specialty non-linear trims, such as ornate column bases, capitals, medallions, and so forth may be all or partially framed outside this agreement if the framing itself is required to affect the assembly of applicable profiled elements thereon for the purpose of shipment to the jobsite; and also, where EPS (foam) profiles or elements are desirable to compete with more costly exterior elements such as GFRC and FRP.

213.2 Where contractors are bidding against non-union contractors who have access to prefabricated products and such products would make unionized contractors noncompetitive and endanger their prospects of successfully competing for a job. In such cases, this waiver shall be processed by the Work Preservation Committee.

214. This Agreement shall cover all work in connection with tilt-up slabs, including but not limited to, benchmarks, lay out, setting of all forms, block outs, metal door and window jambs, templates for bolts, lift points, knee braces, all stripping of forms (whether or not to be reused), rigging, setting, plumbing, and lining, welding, drilling, cleaning, ledger bolts, setting ledgers, setting of expansion joints and caulking. Also, to include forms for stairs and loading docks (setting and stripping), installation of all doors including roll-up, installation of laminated beams or precast structures, and operation of the forklift to perform all of the above work.

215. This Agreement shall cover all work in connection with the hoisting of materials, which are to be used by the carpenters including but not limited to the rigging, guiding, and handling.

216. This Agreement shall cover all work in connection with self-supporting scaffolds over fourteen (14) feet in height or scaffold built for special purposes including, but not limited to, handling, building, erecting and disassembling. Building, erecting and dismantling of any and all motorized or mechanical mast climbing and swinging stage type scaffolds for multi-craft use. Scaffolds erected and dismantled by the scaffold contractors, shall be the work of the carpenters.

217. This Agreement shall cover all work in connection with office modular furniture systems including, but not limited to the unloading by any means, stockpiling, distribution to point of, erection, carrying, handling, transportation, uncrating, installation, cleaning and/or staging of all office, commercial, industrial, institutional, and hotel furniture, furniture systems, furnishing, etc., including (regardless of their materials or method or manner of installation, attachment or connection). Also included will be layout work including the use of level, transit and any other instrument or tool (or adaptable tool) required for the work herein described.

218. This Agreement shall cover asbestos abatement and other work involving the removal of hazardous materials. In the event this work is subcontracted by the Contractor, (Section III shall not apply as stated below). Section III shall not apply but the Contractor agrees to utilize his best efforts to ensure that the work is done by a contractor signatory to an agreement with the Union, provided suitable and competitive signatory contractors are available.

219. Repairs necessitated by defects of material or workmanship or adjustments of newly purchased and/or installed equipment or machinery will not be subject to this Agreement when such repairs and/or adjustments are made by the manufacturer thereof or his agents or employees pursuant to the terms of a manufacturer's guarantee and the Union will not hamper such manufacturer or his agents or employees on such exempted work.

**Craft: CEMENT MASON (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes****SEE AMENDMENT 6**

Cement Mason.....	61.48
Cement Mason – Foreman.....	65.86
Cement Mason – General Foreman .....	68.04

**ADD ZONE RATE**

In addition to CEMENT MASON rates add the applicable amounts per hour, calculated based on a radius from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 Miles	\$0.00
Zone 2	Over 50 Miles	\$4.00

**ADD PREMIUM PAY**

**OVERTIME** – The first two (2) hours worked outside the regularly constituted shift shall be at the rate of time and one-half (1 ½). All additional hours shall be at the rate of double time (2x). On Saturday work, the first ten (10) hours shall be at time and one-half (1 ½) and all additional hours at double time (2x). Sundays and Holidays shall be at double time (2x). All hours worked after ten (10) hours are at the rate of double time (2x) Monday through Saturday.

For employees on a second shift, all hours worked in excess of seven and one-half (7 ½) hours shall be paid for at the appropriate overtime rate as described above. For employees on a third shift, all hours worked in excess of seven (7) hours shall be paid for at the appropriate overtime rate as described above.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and the following Friday following Thanksgiving Day, and Christmas

**JOB DESCRIPTIONS**

1. All building construction, including but not limited to the construction, erection, alteration, repair, modification, demolition, addition, or improvement in whole or in part of any building structure.
2. All heavy, highway and engineering construction, including but not limited to construction, improvement, modification, demolition, of all or any part of streets and highways (including sidewalks, curbs and gutters), bridges, viaducts, rail roads, tunnels, airports, water supply, irrigation, flood control and drainage systems, sewers and sanitation projects, dams, power houses, refineries, aqueducts, canals, river and harbor projects, wharves, docks, breakwaters, jetties, quarrying of breakwater or rip-rap stone, or operation incidental to such heavy construction work.
3. All concrete construction such as buildings, bridges, silos, elevators, smoke stacks, curbs and gutters, sidewalks, streets and roads, paving, alleys and roofs, of mass or reinforced concrete slabs and all flat surfaces of cement, rock asphalt, the placing, pouring and spreading and finishing of all types of bituminous concrete including all types of asphalt floors and pavements, the operation and

control of all types of Vacuum Mats used in the drying of cement floors in preparing same for finish, the operations of laser screeds, roller screeds and any other mechanical screeds, all power driven floats and troweling machines shall be that of the Cement Mason. Cement Masons shall perform all mastic flooring work, whether laid free handed or in pre-cast form on the job; otherwise known as asphalt or mastic, tile, and all other types of resilient floor covering.

4. Cement Masons shall perform the placing with material hose or chute or other device, screeding and finishing of all concrete and pervious concrete surfaces (including gunite, shotcrete and the handling of the cement gun or nozzle), underlayment, overlayers, the stamping, coloring, sealing, curing, waxing, broadcasting of colored stone chips, powdered steel, or coloring powder on concrete, including decorative finishes such as stenciling, staining, dyeing, densification, concrete polishing, sand blasting, grinding and the washing of all concrete construction. The forming and construction involved with any concrete countertop work (including additives and mosaics such as but not limited to glass and specialty aggregates and exposed aggregate). The use of any color pigment when mixed with cement base material including all specialty finishes such as acids staining, alcohol stain, etc., in any other form; mosaic and nail coat whether done by brush, broom, trowel, float, or any other process including operation of machine for scoring floors, or any purpose they may be used for in connection with Cement Masons' trade. All custom and specialty imitation finishes, including but not limited to all ceramic materials, custom rock, brick and block veneer, limitation marble, stone, wood and any other limitation theme. All concrete repair, restoration and inspection work whether architectural or structural, including but not limited to coatings of cement and epoxy coatings of cement based, epoxy and urethanes, injections of epoxies and other repair materials and the use of fiber wrap and other materials used for the structural repair and renovation. Caulking of any type will be the work of the cement mason. Cement Masons shall have jurisdiction over the setting, building, fabricating and installation of all forms, perimeter forms, screeds, bulkheads, batter boards, pour strips, camfer strips for the purpose of containing, shaping or molding concrete, grout, epoxy grout, or any exotic or cement based material on a given line, shape or grade regardless of the composition of the form material. Formwork shall include but not be limited to foundations, sidewalks, curbs and gutters, steps, catch basin and drain inlets, walks, decks, stoops, approaches, etc. and shall include the preparation and setting of all screeds or lines and the use of the level, laser level, transit and builders level in connection with the forming, placement and finishing of all concrete and cement based surfaces or any other method used to determine grade elevation or line. Setting lines for concrete road machines and curb & gutter machines.

5. The mixing, placing, rodding, spreading and finishing of all top materials, sills, coping, steps, stairs, and risers and running all cement, epoxies, and plastic material shall be the work of Cement Masons, all preparatory work on concrete construction to be finished, rubbed, such as sand blasting, cutting of nails, wires, wall ties, etc. All concrete repair processes including below grade and underground including the repair or modification in horizontal or vertical pipe, all vault pouring, pipe banding and shafting, patching, brushing, chipping and bush-hammering, rubbing or grinding if done by machine or hand, diamond or carborundum stone of all concrete construction, setting of all strips, screeds, stakes and grades and curb forms and all glass set in cement. The pointing and patching and caulking around all steel or metal window frames that touch concrete and all concrete segments such as tilt wall and pre-cast. The laying and finishing of Gypsum Material Roof. All dry packing, damp packing, pouring of grout, grouting and the pouring, mixing, handling, placing and pumping of all liquid grouts, epoxy grouts, damming or backer rod, caulking including all prep work for caulking, forming and operation of pressure pots in connection with all grouting operations as well as any finishing where required, and finishing in connection with setting all machinery such as engines, pumps, generators, air compressors, tanks, base plates, column plates, pipe restraints and so forth, which is set on concrete foundations. Grouting of window and door frames shall be the work of the Cement Mason. The saw cutting, scoring of joints, architectural cuts, the use of

soft cut machines for construction joints, expansion or control or the cutting of any line that will be finished back to in old or new concrete shall continue to be the work of the Cement Mason.

6. All prefabricated and prestressed concrete construction on the job site and in the shop, including the supervision of same, such as sidewalks, steps, floor slabs, beams, joists, walls and columns, also the screeding, finishing, rubbing, grouting, pointing, patching and paint prep of same. The finishing of all concrete surfaces by sandblasting, the washout method, bush hammering or any other method and the sealing of these same surfaces shall be the work of the Cement Mason.

7. The curing of finished concrete, pervious concrete and grouting, wherever necessary, whether by chemical compounds or otherwise, shall be part of the jurisdiction of the Cement Mason.

8. All scarifying of concrete and underlayment/overlays, for any purpose including but not limited to bush hammering, needle grinding, water blasting, air blasting, bead blasting and sanding.

9. The placing, spreading, screeding, darbying, trowel finishing of all types of magnesium oxychloride cement composition floors, shall be the work of the Cement Mason: including all types of oxychloride granolithic, resinous, epoxy, m ma (or similar product) and terrazzo composition floors, hand grinding or machine grinding; the preparation of all sub-floor surfaces; the mixing, handling and application of any and all bonding agents by any means or methods; bonding; the preparation and all installation of ground or base courses, steps and cove base. All magnesite composition installation work of the OPCMIA shall be done under the supervision of a competent and qualified Cement Mason.

10. Cement Masons claim the waterproofing of all work included in their jurisdiction, such as Thoroseal, Ironite, Plaster weld and any similar products, regard less of the tools used or the method of application, or color of materials used, and regard less of the type of base these materials may be applied to.

11. Cement Masons shall also have jurisdiction over all work or processes which represent technological change, replacement, modification or substitution for the work described above. In addition, Cement Masons shall perform any and all work and use any and all new materials or techniques involved in cement construction including but not limited to what is known as green or sustainable construction technology.

**Craft: ELECTRICIAN COMMUNICATION TECHNICIAN (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Installer/Technician.....	53.62
Senior Technician.....	74.70
Senior Technician Foreman.....	80.53
Senior Technician General Foreman.....	86.37

**ADD ZONE RATE**

In addition to ELECTRICIAN-Communication Technician, rates, add the applicable amounts per hour, calculated based on a radius from City Hall of Las Vegas:

Zone 1	0 to 25 miles	\$0.00
Zone 2	25 to 55 miles	\$2.50
Zone 3	56 to 85 miles	\$3.50
Zone 4	86 miles and over	\$4.50

**ADD PREMIUM PAY**

One and one half (1 and 1/2) times the regular straight time rate of pay and one and one half (1 and 1/2) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over eight (8) hours worked in a single day or a shift.

Double (2x) the regular straight time hourly rate and double (2x) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over twelve (12) hours in a single day or shift.
2. For any hours worked on a Saturday, Sunday, or Holidays from midnight to midnight.
3. For all hours worked by an employee in a week in which the employer has not established a regular five-day work week daily shift.

**SHIFT DIFFERENTIAL**

1. Second Shift (Swing) will be paid a premium of 15% for all hours worked.
2. Third Shift (Graveyard) will be paid a premium of 30% for all hours worked.

**HIGH TIME**

1. All employees working within 5 feet of a direct fall of sixty (60) feet or more shall be paid an additional one-half (1/2) the straight time hourly rate.

**FULL PROTECTIVE GEAR**

1. Employees required to wear both full protective clothing (coveralls, bootees, gloves, caps, etc.) and full face respirator shall receive ten percent (10%) above their rate of pay.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday following Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION: Excerpt from Agreement between NECA and Local Union 357, IBEW**

Installation, maintenance, service and testing of all apparatus, fire alarm systems and interconnection cables, including fiber optics and/or ethereal aid associated with systems utilizing the transmission

including ultra-high frequencies, video, and digital for the commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background music, intercom and telephone interconnect, inventory control systems, microwave transmission, Halon systems, CO2, FM200, intergen, also all other suppression systems, multi-media, multiplex, PCM (Pulse Code Modulation), SCADA (Supervisory Control and Data Acquisition), nurse call system, radio page, school intercom and sound, burglar alarms and low voltage master clock systems, and data systems that transmit or receive information and control and all other systems which are intrinsic to the above listed systems.

Installations of raceway systems are not covered under the terms of this Agreement (excluding Ladder Rack for the purpose of the above listed systems). Chases and/or nipples (not to exceed 10 ft.) may be installed on open wiring systems. Removal and discarding of all packaging and waste materials related to the above scope of work, excluding demolition waste.

#### **Senior Technician**

Pull cable, install and trim devices, terminate loops, circuits or other data gathering points. Terminate energized main control panels, racks or other head end equipment as well as test all circuits from the field to the main control panels and/or equipment. A senior technician will supervise and coordinate all work under this Agreement.

#### **Installer Technician / Installer Technician**

Pull cable, trim devices, terminate loops, circuits or other data gathering points. Terminate non-energized main control panels, racks, or other head end equipment, as well as test all circuits from the field device to the non-energized panels and / or equipment. The Installer Technicians and Installer Technician Apprentices shall not energize, or work on any energized circuits, loops or equipment, except under the direction of the onsite Senior Technician.

Craft: ELECTRICIAN LINEMAN/GROUNDMAN/HEAVY EQUIPMENT OPERATOR  
(Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Groundman.....	56.00
Lineman.....	71.60
Foreman.....	78.38
General Foreman.....	85.39
Heavy Equipment Operator.....	58.42

**ADD PREMIUM PAY**

All work performed on the above holidays and Sunday shall be paid at double (2x) the straight time rate of pay.

(a) All work performed over ten (10) hours on Saturday shall be paid at double (2x) the straight time rate of pay. This does not apply to any work performed under a customer-controlled wage package.

(b) All worked performed after twelve (12) consecutive hours shall be paid at double (2x) the straight time rate of pay. This does not apply to any work performed under a customer-controlled wage package.

(c) All work performed outside of the regular scheduled workday, other than as described above, shall be paid at the rate of one and one-half times (1½ x) the straight time rate of pay.

**RECOGNIZED HOLIDAYS**

New Year’s Day, Washington’s Birthday (President’s Day), Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between Western Line Contractors NECA and Local Union 396, IBEW

Outside, overhead and underground construction and maintenance work on electrical transmission lines, switch yards, substations and distribution systems which shall include:

1. Pole line work (whether built of wood, metal or other material): the digging and back-filling of holes for poles or anchors (by hand or mechanical equipment); the loading or unloading, handling, sorting and moving of materials; the assembly or erection of all materials including the guying, stringing of conductors and fiber optics or other work necessary on through to the ultimate completion of such pole work.

2. Steel or metal structures used for the purpose of carrying electrical wire, conductors, or equipment (this includes transmission towers, outdoor substations, switch racks, or similar electrical structures); the moving of men, tools or equipment; the loading or unloading, handling, sorting and moving of materials; the assembly and erection of all materials used on the job site, including the assembly of the grillage and foundations, on through to the ultimate completion of such structures. Work covered shall include the grounding of all such structures except the bonding of stub-angle to rebar cage; the stringing and installation of wires, cables and insulators or other electrical equipment suspended from structure; also the handling and placing of transformers or O.C.B.'s and other related electrical equipment.

The moving of men, tools or equipment; the loading or unloading, handling, sorting and moving of materials; the assembly of all electrical materials on race-ways such as ducts, shall be performed by workmen under the Agreement. This shall also include CIC (cable in conduit), CC (coillable conduit), the placing of fish wire, the pulling of cables or wires through such race-ways, installing and making up of termination and the splicing of such conductors.

Street lighting systems where such work properly comes under the outside jurisdiction shall be handled in the same manner as pole line construction.

Installing and maintaining the catenary and trolley work and bonding of rails shall be handled in the same manner as pole line, and steel construction.

In connection with all of the above items, it is understood the scope of this Agreement shall include not only new installation work but shall also govern the repair, maintenance or dismantling of such structures, lines or equipment; the handling and operating of all equipment used to transport men, tools and/or materials on the job site as well as the equipment used to move, raise or place materials used in the Outside Branch of the Electrical Industry shall be performed by workmen under this Agreement unless otherwise excluded herein.

Craft: ELECTRICIAN – NEON SIGN  
(Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Electrician Neon Sign Journeyman.....	56.78
Electrician Neon Sign Foreman.....	57.78

**ADD PREMIUM PAY**

One and one half (1 ½) the regular straight time hourly rate shall be paid:

1. For all hours worked over eight (8) hours in one day or shift, either before or after the shift.
2. For up to 8 hours worked on Saturday from midnight to midnight.

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked over eleven (11) hours in one day or shift, Monday thru Friday.
2. For all hours worked in excess of 8 hours on Saturday, Sundays or Holidays.

**SHIFT DIFFERENTIAL**

Second Shift (Swing) will be an additional \$0.75 cents per hour.

Third Shift (Graveyard) will be an additional \$1.00 per hour.

**HIGH TIME (Working at heights)**

1. All employees working at height of 65 feet and subject to a direct fall shall be paid an additional \$2.25 per hour in addition to their normal rate for a minimum of 2 hours.
2. All employees working at height of 125 feet or when repelling below 65 feet shall be paid an additional \$3.25 per hour in addition to their normal rate for a minimum of 4 hours.

**FOREMAN**

1. First employee on the job must have a CDL and Welder certification and shall be paid \$1.00 per hour in addition to their normal rate of pay.
2. When supervising (5) or more workers shall be paid an additional \$1.25 per hour.

**RECOGNIZED HOLIDAYS**

New Year’s Day, Washington’s Birthday (President’s Day), Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:**

includes but is not limited to:

1. Installing, servicing and repairing plastic, neon and illuminated signs;
2. Ascending ladders or operating hydraulic or electric hoist to install, service, or examine sign to determine cause of malfunction;
3. Wiring, rewiring or removing defective parts and installing new parts using electrician's tools;
4. Removing sign or part of sign for repairs, such as structural fabrication, scroll repair, or transformer repair;

**Craft: ELECTRICIAN WIREMAN (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Wireman.....	75.07
Wireman-Cable Splicer.....	75.58
Wireman Forman.....	80.94
Wireman General Foreman.....	86.81

**ADD ZONE RATE**

In addition to ELECTRICIAN-Wireman, rates, add the applicable amounts per hour, calculated based on a radius from City Hall of Las Vegas:

Zone 1	0 to 25 miles	\$0.00
Zone 2	25 to 55 miles	\$2.50
Zone 3	56 to 85 miles	\$3.50
Zone 4	86 miles and over	\$4.50

**ADD PREMIUM PAY**

One and one half (1 and 1/2) times the regular straight time rate of pay and one and one half (1 and 1/2) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over eight (8) hours worked in a single day or a shift.

Double (2x) the regular straight time hourly rate and double (2x) the hourly amount of the fringe benefit rate shall be paid:

1. For all hours worked over twelve (12) hours in a single day or shift.
2. For any hours worked on a Saturday, Sunday, or Holidays from midnight to midnight.
3. For all hours worked by an employee in a week in which the employer has not established a regular five-day work week daily shift.

**SHIFT DIFFERENTIAL**

1. Second Shift (Swing) will be paid a premium of 15% for all hours worked.
2. Third Shift (Graveyard) will be paid a premium of 30% for all hours worked.

**HIGH TIME**

1. All employees working within 5 feet of a direct fall of sixty (60) feet or more shall be paid an additional one-half (1/2) the straight time hourly rate.

**FULL PROTECTIVE GEAR**

1. Employees required to wear both full protective clothing (coveralls, bootees, gloves, caps, etc.) and full face respirator shall receive ten percent (10%) above their rate of pay.

**WELDERS**

1. Wiremen when welding shall be paid a premium of five percent 5% over their normal rate of pay.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday following Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between NECA and Local Union 357, IBEW

Workmen employed under the terms of this Agreement shall perform all electrical electronic construction, installation or erection work and all electrical-electronic maintenance thereon, including the final running tests.

This shall include the installation and maintenance of temporary wiring and the installation of all electrical lighting, heating and power equipment.

This agreement covers the installation, construction and maintenance of any electrical system that is covered by the National Electrical Code. The contractor and the workers employed under the terms of this agreement shall perform the following work: Blueprint reading, layout, the handling, moving and installation and/or removal of all electrical or electronic material, equipment or apparatus including rigging, forklift operations, movement and transport of all electrical equipment and material by any means; install all raceways, temporary or permanent whether inside, outdoors, underground, concealed, surface or overhead, and poles specifically used to support electrical fixtures or equipment. Raceways are to include any enclosed metallic or nonmetallic materials and their encasement, designed expressly for holding electrical wires, cables or bus bars and the support thereof. The installation of bonding and grounding systems, lightning protection, cathodic protection, current carrying conductors, fiberoptic conductors, cables, pull ropes or wires and the operation of equipment to install such; energized or de-energized systems; all electrical or electronic construction and erection work; installation and connecting of motors, controllers, generators, all lighting fixtures, supports and controllers. The work shall also include installing temporary lighting, landscape lighting, lighting systems and the adjusting, focusing or refocusing thereof. Installation of all electrical and electronic equipment, electronic systems, communication systems, photo-voltaic systems, solar and wind generating systems, fire alarm, voicedata-video systems, audio, security, CCTV, and surveillance with all related control wiring, terminations and devices, up to and including the final running test and any related instrumentation work. Such work as welding, heat stress for welds, burning, brazing, bending, drilling and shaping of all copper, channel iron, angle iron, I beams and brackets to be used in connection with the installation and erection of electrical wiring or equipment. The installation and maintenance of all temporary wiring and of all electrical lighting, heating, power equipment and generating systems. The cutting, threading, bending of all conduit whether metallic or non-metallic, by hand or machine and installation of such conduit.

The work also covers the installation of street lighting, traffic signals and intelligent transportation systems and all associated work. Removal and discarding of all packaging and waste materials related to the above scope of work, excluding demolition waste. All work, including medium voltage (15KV), of joining, splicing, and insulating, and the placing of flame proof covering where wiped lead joints are necessary, shall be performed by cable splicers. Journeymen only shall be used in assisting cable splicers. Cable splicers shall not be required to work on wires or cables where the difference in potential is over three hundred (300) volts between any two (2) conductors or between any conductor and ground, unless assisted by another journeyman. In no case shall cable splicers be required to work on energized cables carrying in excess of four hundred and forty (440) volts.

**Craft: ELEVATOR CONSTRUCTOR (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Elevator Constructor-Journeyman Mechanic.....	92.65
Elevator Constructor-Journeyman Mechanic In Charge.....	99.82

**ADD PREMIUM PAY**

Work performed on Construction Work on Saturdays, Sundays and before and after 30 the regular working day on Monday to Friday, inclusive, shall be classed as overtime, and paid for at double the rate of single time.

**RECOGNIZED HOLIDAYS**

New Year's Day, Memorial Day, Independence Day, Labor Day, Nevada Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION: Excerpt from Agreement of International Union of Elevator Constructors**

Renewal of all ropes.  
 Renewal of brake linings (except small machines).  
 Shortening of all hoisting and counterweight cables.  
 Replacement of any traveling cable exceeding 50 feet in length.  
 Safety test where test weights are required.  
 Replacement of crosshead, counterweight or deflector sheave bearings.  
 Rescoring of sheaves or drums.  
 Replacement of worm and gears.  
 Rebabbiting of bearings.  
 Hydraulic repair work except cleaning, oiling, greasing, belts, small valves, adjusting and one man pressure relief valve test performed.  
 Adjusting or readjusting using test weights.  
 Realigning guide rails.  
 Replacing crossheads, stiles, safeties or equalizers.  
 Hoistway door closers with hydraulic or pneumatic checks.  
 Installing sound isolation.  
 Replacement of door hangers (except for freight bi-parting doors).  
 All door closer work (except for freight biparting doors).  
 Rewiring car switches, governors and selectors or any other apparatus in the car.  
 Refastening guide rails.  
 Replacing or repairing car floor covering.  
 Rewiring or reinstalling limit switches.  
 Replacing automatic rail or track oilers.  
 Armature repairs.  
 Renewing of car shoes or roller guides.  
 Repairs to cab or car gate. Renewal of motor bearings.  
 Replacing thrust bearings.  
 Rewiring controllers.  
 Installation and/or replacement of the following (except when the completion of such work requires more than eight (8) hours, excluding travel time, it shall be performed by a team): Proximity devices (door protection only).  
 Emergency lighting (battery chargers and lights).  
 Braille Plates.

Telephones/Communication Devices (with existing wiring and box in place).

Fixture Cover Plates (no wiring).

Key switches/Security devices (with existing wiring, excluding full Fireman's Service Operation).

Controller Wiring Changes (minor changes).

Fixture Replacement (in existing locations only).

Replacement of relays, timers, or mechanical devices with solid state devices and circuitry.

The replacement of equipment on existing elevator installations.

When escalators are prepared and/or disassembled for cleaning, oiling, greasing, adjusting and minor replacement, (minor replacement meaning work requiring one (1) hour or less), the work shall not be classed as repair work. When escalators are prepared and/or disassembled for cleaning, etc., purposes as mentioned above, and any replacement and/or repairs requiring more than one (1) hour, only the replacement and/or repairs shall be classed as repair work. When escalators are prepared and/or disassembled primarily for replacement and/or repairs, all work shall be classed as repair work.

Craft: FENCE ERECTOR (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Fence Erector.....62.99

**ADD ZONE RATE**

In addition to: Fence Erector rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time. If any of the below holidays should fall on a Sunday, the Monday following shall be considered a legal holiday.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day and Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between NCA/AGC and Labor Local 872

**FENCE ERECTOR**

Includes but is not limited to: erecting or repairing, Chain Link, wooden, metal, vinyl, steel, tortoise, wire/wire mesh or temporary fence. Mortarless, Barrier Wall and/or Retaining Walls; Digging post holes with spade. Post hole digger or power-driven auger; Aligning post through the use of lines or by sighting; verifying vertical alignment of post with a plumb bob or spirit level.

Craft: FIELD SOILS AND MATERIAL TESTER  
BUILDING/CONSTRUCTION INSPECTOR  
(Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Group 1.....	84.39
Group 2.....	86.17
Group 3.....	88.17

**ADD ZONE RATE**

In addition to: FIELD SOILS AND MATERIAL TESTER rates add the applicable amounts per hour calculated from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 32.5 miles	\$0.00
Zone 2	32.5 to 45 miles	\$3.00
Zone 3	45 to 60 miles	\$4.00
Zone 4	over 60 miles	\$4.50

**ADD PREMIUM PAY**

All time worked before 6:00 A.M. and after 5:00 P.M., or all time worked in excess of eight (8) consecutive hours, exclusive of meal periods, and all work performed on Saturdays, Sundays and holidays, shall be paid at the applicable overtime rate.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**[Operating Engineers JOB DESCRIPTION:](#)**

**Craft: FLAG PERSON (Union Rate)**

**Prevailing wage rates include the base rate as well as all applicable fringes**

Flag Person.....61.49

**ADD ZONE RATE**

In addition to: FLAGPERSON rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION**

**FLAG PERSON**, includes but is not limited to:

1. Directing movement of vehicular traffic through construction projects;
2. Distributing traffic control signs and markers along site in designated pattern;
3. Informing drivers of detour routes through construction sites;

**Craft: FLOOR COVERER (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Floor Coverer Journeyman.....	58.82
Floor Coverer Foreman.....	67.25

**ADD PREMIUM PAY**

One and one half (1 ½) the regular straight time hourly rate shall be paid:

1. For first three (3) hours worked over eight (8) on a regular five (5) day week.
2. For all hours worked on Saturday. Employees shall not work less than four (4) hours.

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked beyond eleven (11) hours shall be paid at two (2 X) times the straight time rate.
2. For all hours worked on Saturday beyond 8 hours (2 X) times the straight time rate.
3. For hours worked Sunday and Recognized Holidays. Employees shall not be employed for less than four (4) hours. All hours worked shall be paid at the rate of two (2) times the straight time hourly rate.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between Painters and Allied Trades DC 16 and So NV PDCA

\*Shift Differential: To be paid for all work performed between the hours of 9 pm to 5 am and it will be compensated at \$2.00 per hour in addition to the applicable wages. Overtime that falls between these hours will still be paid at the appropriate overtime rate.

- a. The installation of resilient flooring, wall, ceiling and countertop materials commonly referred to as carpet, linoleum, vinyl, rubber, cork, asphalt, vinyl composites, synthetic grass, wood, epoxy, urethane, plastics, metal, and all similar materials in sheet, tile, or liquid form;
- b. Installation on floors, walls, ceilings, stairs, countertops, fixtures, furnishings, or exterior applications on structures, patios, pool perimeters, area ways, all other like or similar applications, whether permanent or temporary;
- c. Measuring, cutting, fabrication, packaging, pickup, delivery and handling of materials and tools that are used by the floorcovering industry;
- d. Preparatory removal of floorcovering, wallcovering, adhesive and underlayments. The sanding, patching, sealing, and priming of the installation surface;
- e. Installation of lining felt, carpet, pad, underlayment compositions, leveling compounds, or any material used as a base for the finished surface;
- f. Applications and fitting of fasteners, protective and decorative trim relating to the installation such as tackless strip, tape, nosing, top set or butt-to-base, cap, corner beads, edging, hinging, and all other accessories, and related sundries;
- g. Repair, finishing, coating, sculpturing, banding, insets, and such other processes relating to the industry;

- h. Installation of decorative moldings and accessories attached with adhesive such as those manufactured by Johnsonite and other manufacturers.

This Agreement shall also cover the loading, unloading and operation of work trucks utilized by employees classified herein. Such vehicles shall be defined to mean those that are driven from the shop to the job and from job -to-job and job-to-shop and which remain at the job site while the employees are engaged in the performance of work covered by the contract.

It shall further cover and apply to the stocking and handling of all material herein above listed after the first unloading by common carrier.

Craft: GLAZIER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Glazier Journeyman.....	80.85
Glazier Foreman.....	85.78
Glazier Superintendent.....	88.39

**ADD PREMIUM PAY**

One and one half (1 ½) the regular straight time hourly rate shall be paid:

1. For first two (2) hours worked over eight (8) on a regular five (5) day week.
2. For all hours worked on Saturday. Employees shall not work less than four (4) hours.

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked beyond ten (10) hours shall be paid at two (2 X) times the straight time rate.
2. For all hours worked on Saturday beyond 8 hours (2 X) times the straight time rate.
3. For hours worked Sunday and Recognized Holidays. Employees shall not be employed for less than four (4) hours.

\*Also, if there is less than 10 hours between shifts, the 2nd shift becomes an extension of the 1st shift.

\*Shift Differential: To be paid for all work performed between the hours of 5:30 pm to 5 am and it will be compensated at 10% differential for all hours worked including overtime. Overtime that falls between these hours will still be paid at the appropriate overtime rate.

**20.1 High Pay** – work that is thirty (30) or more feet in height above grade on an elevated, mechanically operated platform (including but not limited to: swing stage, boatswain chair, crane basket, heck lift, boom lift), rappelling work, work at slab edge outside the perimeter safety cable or work at slab edge inside the perimeter safety cable if the work being performed puts the employee in a free fall situation because the perimeter safety cable is no longer at or near waist level shall be paid at the rate of one dollar (\$1.00) per hour above the straight time rate for actual hours worked. High time shall be paid in addition to all other premiums involved.

**25.2 Foremen:**

**a)** The selection of the individual to act as foreman shall be at the discretion of the Employer. On outside jobs lasting three (3) days or more and which four (4) workers or more are employed, one (1) foreman will be designated and he shall be paid ten percent (10%) per hour over the highest journeyman Glazier supervised. Inside foreman shall receive ten percent (10%) per hour above the journeyman’s wage scale.

**b)** When a glazier is requested to perform welding on the job site, he/she will be compensated one dollar (\$1.00) over his regular rate of pay. All equipment, including hoods, leather and gloves, will be supplied by the Employer.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between DC 16 and Glazing Contractors Associations of NV and Independent Contractors

General Glazing shall include the layout and setting by hand or with machines, cutting, preparing handling or removal of the following and incidental and supplemental to such work: setter of art glass, prism glass, beveled glass, leaded glass, automobile glass, window glass, mirrors of all types, wire glass, ribbed glass, ground glass, colored glass, figured glass, vitrolite glass, carrara glass, and all other types of opaque glass; glass chalk boards, structural glass, tempered and laminated glass, thiokal, neoprene and all other types of glass cements, all types of insulating glass units, solar heat collectors containing glass or glass substitutes, glass hand rail, electric glass, bathroom fixtures, all plastics when used in place of glass, all other similar materials when used in place of moldings, tubber, lead and all types of mastic in wood, iron, aluminum or sheet metal, sash skylights, doors, frames, stone, wall cases, show cases, books cases, sideboards, partitions, automatic doors, automatic sliding doors, revolving doors, luminous ceilings, gaskets, and plastic mirrors, the installation of the above materials, temporary or permanent, on or for any building in the course of repair, remodel, construction or alteration.

The installation of all glass framing or support systems for the same such as extruded, rolled or fabricated metals or any materials that replace the same, such as plastics, metal tubes, mullions, metal facing materials, muttins, facia trim moldings, porcelain panels, skylights, showcase doors and relative materials, including those in any or all of the buildings related to the store front and window wall, curtain wall, stop wall, skylight and dome construction. Glazing and installation of door and window frames, such as patio sliding or fixed doors, vented or fixed windows, shower doors, bath tub enclosures, screens storm stash where the glass becomes an integral part of the finished products, the tinting and coating of glass for the reflecting of heat and light, showcase tops, glass shelving of all types and table tops. In addition, such caulking, glass to glass, glass to metal, metal to concrete and panel to panels.

Production, maintenance, including all incidental and supplemental to, but not limited to Employees, and Employees who are engages int eh cutting, preparing, handling and selecting of glass and /or mirror, bevellers, silverers, blockers, scratch polishers, sand-blasters, flat glass wheel cutters, miters cutters, engraver, hole-drilling machine operations, belt sanding, automatic beveling, multi-grove edging machines, semi- and automatic-cutting machines, grinding, polishing unpacking ad racking or glass, glass packing, glass and mirror cleaning, mirror stripping, all operations in the manufacturing, framing and fabrication and assembling of all insulating units, assembling of all glass insulated solar heat collectors containing glass or glass substitutes, molding or mirrors, manufactured and assembly of sliding glass or mirror doors, the operating of all machines and equipment for these operations, oven operations, glass hangers, glass benders and operators, safety glass fabricators, inspectors, janitors, maintenance mechanics, loading and unloading or truck and railroad cars.

**Craft: Highway Striper (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Highway Striper.....62.99

**ADD ZONE RATE**

In addition to: FLAGPERSON rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:**

**HIGHWAY STRIPER**, includes but is not limited to:

1. Painting highways, streets and parking surfaces by using manually propelled or mechanically propelled machines, brushes, rollers or spray guns;
2. Installing any device or application of any material used in lieu of paint for traffic direction, including, without limitation, buttons, tapes, plastics, rumble bars and other similar materials;

**Craft: Hod Carrier-Brick Mason Tender (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Hod Carrier-Brick Mason Tender.....63.30

**ADD ZONE RATE**

In addition to: HOD CARRIER-PLASTERER – BRICK MASON TENDER rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:****HOD CARRIER-BRICK MASON TENDER**, includes but is not limited to:

1. Tending to or assisting brick masons, bricklayers and stonemasons;
2. Mixing, packing, wheeling and tempering mortar and fire clay;
3. Mixing, supplying and holding materials or tools;
4. Mixing, handling and conveying all other materials used by brick masons, bricklayers and stone masons;
5. Building scaffolds, trestles, boxes and swinging staging used exclusively by bricklayers and stone masons;
6. Hanging cables and placing putlogs;
7. Carrying bricks and mortar in a hod;
8. Cleaning work area and equipment of bricklayers and stone masons

**Craft: Plasterer Tender (Union Rate)**  
*(Formerly known as Hod Carrier-Plasterer Tender)*

**Prevailing wage rates include the base rate as well as all applicable fringes**

Plasterer Tender-Journeyman.....	64.39
Plasterer Tender- Foreman.....	67.24
Plasterer Tender-General Foreman.....	70.24

**ADD ZONE RATE**

In addition to: HOD CARRIER-PLASTERER – BRICK MASON TENDER rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between NCA/AGC and Laborers Local 872

Plaster Tending shall consist of preparation of materials and the handling and conveying of materials to be used by mechanics of other crafts, whether such preparation is by hand or any other process. After the material has been prepared, tending shall include the supplying and conveying of said material and other materials, to such mechanic, whether by bucket, hod, wheelbarrow, buggy, or other motorized unit for such purpose, including forklifts. 2. Unloading, handling and distribution of all materials, fixtures, furnishings, and appliances from point of delivery to stockpiles and from stockpiles to approximate point of installation. 3. Drying of plaster, concrete, mortar, or other aggregate, when done by salamander heat or other drying process. 4. Cleaning and clearing of all debris, including all clean-up regardless of craft, construction clean-up including final construction clean-up before TCO is issued will be performed by Laborers. If clean-up composite crews are utilized, the work shall be performed by Laborers only. Wire brushing of windows, scraping of floor, removal of surplus material from all fixtures within confines of structure and cleaning of all debris in building and construction. The general clean up, including sweeping, cleaning, wash down and wiping of construction facility, equipment; and furnishing and removal and loading or burning of all debris including crates, boxes, and packaging waste material. Washing or cleaning of walls, partitions, ceilings, windows, bathrooms, kitchens, laboratories and all fixtures and facilities therein. Clean up, mopping, washing, waxing and polishing or dusting of all floors. Tool trailers and light tool repair. 5. The aging and curing of concrete, mortar, and other materials applied to walls, floors, ceilings, and foundations of buildings and structures, highways, airports, overpasses and underpasses, tunnels, bridges, approaches, viaducts, ramps or other similar surfaces by any mode or method. 6. Laborers will perform the erection, planking, and removal of all scaffolds for lathers, plasterers, bricklayers, and other construction trade crafts as well as the building, planking or installation and removal of all staging, swinging and hanging scaffolds, including maintenance thereof. Where self-supported scaffolds or specially designed scaffolds are built by Carpenters, Laborers shall

tend Carpenters on erection thereof; the dismantling of said scaffolds as well as preparation for foundation or mud stills of said scaffolds and maintenance of same shall be done by Laborers. 7. Dust control/single axle dump trucks and water trucks on intermittent use. 8. Street sweepers and vacuum trucks. 9. Contractor will supply all protective clothing for hazardous conditions, hardhat, safety glasses, hearing protection, concrete boots, rubber gloves, concrete shovels, asbestos suits, and respirators per OSHA (29 CFR Part 1926 Subpart E-P.P.E. and LifeSaving Devices). The Employer is not responsible for steel-toe boots unless mandated by awarding body or State law. No employee covered under this Agreement shall wear any company logo without the Laborers logo when required to wear a Company uniform.

**Craft: Ironworker (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes****SEE AMENDMENT 8**

Ironworker-Journeyman.....	78.74
Ironworker - Foreman.....	83.21
Ironworker -General Foreman.....	88.13

**ADD ZONE RATE**

In addition to Iron Worker rates add the applicable amounts per day, calculated based on a road mile from the Las Vegas City Hall.

Zone 1	60 – 75 miles	\$20.00
Zone 2	75 - 100 miles	\$25.00
Zone 3	100 miles and over	\$75.00

**ADD PREMIUM PAY**

One and one half (1X) the regular straight time hourly rate shall be paid:

1. For the first two (2) hours worked in excess of eight (8) on a regular workday Monday-Friday
2. For the first eight (8) hours on Saturday

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked over ten (10) hours in one day or shift.
2. For any hours worked on Sunday.
3. For all hours worked over eight (8) on Saturday
4. For all hours worked on Holidays

**Shift Pay**

1. 2nd shift add 6% of hourly wage
2. 3rd shift add 13% of hourly wage
3. Dedicated shift add 6% of hourly wage

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB CLASSIFICATION:** Excerpt from Agreement between NV AGC and DC of Ironworkers

All work in connection with field fabrication and/or erection or deconstruction of structural, ornamental and reinforcing steel, including but not limited to the fabrication, rigging and signaling, erection and construction of all iron and steel, ornamental lead, bronze, brass, copper and aluminum, plastics and all other substitute materials, including, but not limited to, composites, carbon fiber and fiberglass, all barrier railings, handrail, aluminum, steel, glass and plastic, reinforced concrete structures or parts thereof; bridges, viaducts, inclines, dams, docks, dredges, vessels, locks, gates, guides, aqueducts, reservoirs, spillways, flumes, caissons, cofferdams, subways, tunnels, cableways, tramways, monorails, blast furnaces, stoves, kilns, coolers, crushers, agitators, pulverizers, mixers, concentrators, ovens, cupolas, roof decking such as but not limited to "Cofar", "Trusdeck", Mahon "M"; smoke conveyors, penstocks, flag poles, drums, shafting, shoring, fur and storage rooms, fans and hot rooms, stacks, bunkers, conveyors, dumpers, elevators, vats, tanks, enamel tanks, enamel vats, towers, pans, hoppers, plates, anchors, caps, corbels, lintels, Howe and combination trusses, grillage and foundation

work, grating, bucks, partitions, hanging ceilings, hangers, clips, brackets, flooring, floor construction and domes, rolling shutters, curtains, frames; aluminum, rolling fire, won and iron doors, including supports; cast tiling, air ducts, duct and trench frames and plates; wire work, railings, wire cable including pipe, guards, fencing, grill work, sidewalk and vault lights, skylights, roofs, canopies, light steel framing, marquees, awnings, the erection and installation of playground equipment to include bolting, fastening, welding of swings, slides, jungle gyms, footings and other related equipment elevator and dumb waiter enclosures, elevator cars, tracks, fascias, aprons, operating devices, steel and aluminum sash, hardware and screens, frames, fronts, lockers, racks, book stacks, tables, shelving, metal furniture, seats, chutes, escalators, stairways including pre-engineered stairs, ventilators, boxes, fire escapes, signs, jail and cell work, safes, vaults, vault doors, safe deposit boxes, corrugated sheets when attached to steel frames, including insulation; frames in support of boilers; materials altered in field such as framing, cutting, bending, drilling, burning and welding including by acetylene gas and electric machines; metal forms and false work pertaining to concrete construction; seismic isolation systems and dampening systems including base isolators, sectional water tube and tubular boilers and stokers; traveling sheaves, vertical hydraulic elevators, bulkheads, skip hoists, making and installation of articles made of wire and fibrous rope, rigging in connection with pumps, compressors, forced and induced draft fans, air meters, Bailey meters, agitators, oxygen converters, cinder machines, pelletizing machines, reactor vessels, reactor spheres, completed tanks and assembled sections of completed tanks, scroll cases, refineries, hydroelectric power houses and steam plants, cogeneration plants, vessels and government departments; false work, travelers, scaffolding, pile drivers, sheet piling, derricks and powered derrick swinger including the erection, installation, handling and operating. Cranes erection, installation, handling and operating of same on all forms and types of construction work. The operation of Valla and Spider type battery and/or propane powered portable floor cranes having no operator seat utilized to install ironworker scope of work and the same on all forms and types of construction work. Crane work at the ports, including hammer-head cranes, container cranes and rubber tire cranes. Offloading, relocations, and commissioning of all burning and removal of sea bracing track layout; erection of apex boom extensions, back reach extensions, and rail replacement. Includes all welding, containment and structural modifications of the aforementioned items; railroad bridge work including maintenance thereof; moving, hoisting and lowering of machinery, modules, skid modules and placing of same on foundation, including bridges, cranes, intermittent use forklifts, derricks, buildings, piers and vessels; loading, unloading, necessary maintenance, erection, installation, removal, wrecking and dismantling of all of the above and all reinforcing work and submarine diving in connection with or about same; erection of steel towers, chutes and spouts for concrete where attached to towers and handling and fastening of cables and guys for same; unloading, racking, sorting, cutting, bending, hoisting, placing and tying including the use of any and all mechanical tying devices, burning and welding including stud welding of all iron, steel and metal in reinforced concrete construction including mesh for floor arches and the making of hoops and stirrups, metal forms and metal supports thereof; jacking of slip forms, installation of all wire, cable, parabolic cans, steel and all other materials, including, but not limited to, composites, carbon fiber and fiberglass, used for the purposes of prestressing including grouting of ducts, post stressing concrete girders, beams, columns, etc.; loading, unloading, hoisting, handling, signaling, placing and erection of all prestressed, post stressed, precast materials, G.F.R.C., Dryvit System, including the securing by bolting and/or welding and the installation of steeltex and wire mesh of any type when used for reinforced concrete construction; erection of all curtain wall; glass handrail; stay in place deck; automated and/or mechanical parking structures; offloading, staging, hoisting and setting of modular structures and micro-units; curtain wall systems and associated sealants. Window wall and entrances, panels, insulated and non-insulated, factory and field assembled, porcelain enameled panels, ceramic, laminated spandrelite, louvers and sunscreens; application of thiokol, neoprene and other sealants used to seal materials installed by Iron Workers; installation and handling of phenolic panels, including but not limited to, Trespa products and all similarly related materials and/or systems; installation of metal window stools and sills; installation of aluminum, bronze and steel thresholds; erection and dismantling of all types of cranes and changing of booms; erection of rock, sand and gravel plants, dismantling and loading out conveyors, aggregate

plants, batch plants, abeleways, refrigeration plants, etc.; erection and dismantling of Monigan walking dragline, launchhammer bucket wheel excavator and other trenching equipment; signaling on highlines, whirley cranes and derricks, buck hoists, man hoists, fork lifts, material towers and scanning antennae; metal and steel supports of all types; fabrication, assembling and erection of offshore drilling platforms or similar installations; dust collectors, precipitators, multi-plate, specialty welding processes, unloading, loading, hoisting, handling and rigging of all building materials delivered to the job site; hanging ceilings, tees, channels, beams, acoustical elements, sound barriers, computer floors, etc.; installation of stage rigging (including counterweights), curtains, draperies, traverse rods, tracks, cables, window cleaning equipment, powered work platforms, including and loading and unloading, erection installation and removal of powered chassis mounted elevating mast climbing work platforms, rigging in connection with display shows; ski lifts, etc.; wrecking of bridges, viaducts, elevated roads and structural steel and iron in buildings; all steel frames for openings, all porches, verandas, canopies and balconies; all overhead travelers, duo rails, tram rails; erection, setting, repairing of guard or collision rails on bridges and approaches, road ways or any other structures; handling and setting of all types of steel and metal joists, including metal box joists for truss lab and preformed keystone shaped metal joists; erection of steel and metal houses and packaged buildings; all translucent and plastic material on steel frame construction; the erection of solar energy systems, including but not limited to, photo voltaic, heliostat and parabolic systems, energy producing windmill type towers, wind turbine erection to included, but not limited to, prep work, boltup, tensioning or torque of bolts on base and all tower section turbine and blade assemblies; nuclear reactors, electromagnetic shielding plates and atomic vessels including all component parts; the plumbing, aligning and leveling of all materials and equipment through the use of optical instruments, LASER beams, etc., and the use of instruments to establish layout, installation and disposition of ironworker installed scope of work, excluding any independent 3rd party surveyor work; the unloading, distributing, stockpiling and handling of all materials coming under the jurisdictional claims of the UNION such as to rail heads, storage yards, loading and unloading, hoisting, handling, signaling of all fabricated material and equipment at the jobsite (except FOB deliveries) related to the Iron Workers jurisdiction that is within the individual employers' contractual scope of work including from and to barge and ships to a lay down yard or construction project, etc., shall be done by the Iron Workers.

All reinforcing work in connection with field fabrication, including but not limited to the pre-assembly of reinforcing cages, loading and unloading, handling, racking, sorting, cutting, bending, hoisting, intermittent use of forklifts, placing, burning, welding and tying of all material including the use of any and all mechanical tying devices, or substitute materials, including but not limited to, composites, carbon fiber and fiberglass, stainless steel, used to reinforce concrete construction shall be done by Iron Workers within the individual employers' scope of work at the jobsite, excluding FOB deliveries. A working Iron Worker shall be employed for maintenance on jobs of substantial size while concrete is being poured on reinforcing steel, wire mesh and paper back steeltex but will not be required as a stand-by man. All work in connection with the installation, alignment, repair & modification of panelized roofing systems, pre-engineered fabric structures, aluminum clarifier coverings, carports, ministorage, and dock planks. All work in connection with the installation, alignment, repair and modification of bleachers, planking and stadium seating. All work in connection of installation of amusement rides including, but not limited to, the erection and alignment of all track, machinery and related components.

**Craft: Laborer (Union Rate)**

**Prevailing wage rates include the base rate as well as all applicable fringes**

**SEE AMENDMENT 1**

Group 1.....	62.99
Group 1A.....	61.49
Group 2.....	63.20
Group 3.....	63.30
Group 3A.....	63.80
Group 4.....	63.39
Group 5.....	63.49
Group 6A.....	66.15
Group 6B.....	65.65
Group 6C.....	65.40
Group 6D.....	66.01
Group 6E.....	65.65
Group 6F.....	72.71
Group 7.....	63.63

Foreman \$3.00 above highest paid journeyman supervised.  
General Foreman \$3.00 above highest paid foreman supervised.

**ADD ZONE RATE**

In addition to: Laborer rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays shall be at double time.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between NCA/AGC and Labor Local 872

In addition to the foregoing, this Agreement covers all watchmen, flagmen (all crafts), fire watchmen, traffic control person, including the operation of appropriate vehicles, laborers, construction specialists, concrete specialists, foremen (general, grade, pipe, concrete, forms, seeding, asphalt, clearing and grubbing, clean-up stone-laying) in the performance of: the laying of all types of pipe and conduit; the spreading, and pouring and raking and tamping of all asphalt and concrete materials and the bull floating (strike off) of all concrete; the laying of all types of stone or manufactured curb, rip-rap, paving blocks, concrete blocks (paving), slope paving, Belgium Block; assembling and placing of Gabion and all similar types of baskets; the handling, loading and unloading and stringing of all materials, the handling, loading and stringing of all wood products by hand or power; the sharpening of all air tool bits and drills and bull points; laying, spreading and storing of all tarpaulins, the operation and maintenance

of Bo Mag Rollers; (tending of all Crafts regardless of work being performed in Southern Nevada by any and all methods; any and all types of heaters, fans, air conditioners, or other cooling devices to be tended, handled and fueled by laborers at all times; the handling, laying and placing of forms used for curbing, gutters, roads, and sidewalks and the stripping of same, the placing, setting and maintenance of all flares, blinker lights and reflectors; the cutting and chipping of all joints; the handling, loading, unloading, distributing and erecting of chain-link fence; handling and erecting of wire fence; overhead signs; handling and moving all furniture; handling and placing of wire mesh on roads and bridges; guard rails; the sandblasting and applying of sealers and hardeners and epoxy on concrete and asphalt work; asphalt striping and other asphalt painting; the nozzle operations on sandblasting and guniting operations; the signing of all materials, manufactured or otherwise, which are handled or put in place by laborers, the handling, the loading and unloading and distribution and installation of all guard rails, highway signs, and road markers; attending to, handling, and fueling single diaphragm pumps, insulation pumps, plasterer pumps, monocoat pumps, grout pumps, and pumps up to and including 2" pumps; laying out, moving, connecting, storing and handling all hoses for all pumps; the operating of all types of machines used to seal any type of joints; the operating and servicing of mortar mixers (including, but not limited to, maxi mixers and/or mega mixers) and conveyers used in laborers' and bricklayers work regardless of number; the operating and servicing of all rock drilling machines; the blasting and dynamiting of all rock; welding (excluding machinery, tools, structural steel); installation of manholes and catch basins; the placing of all pre-cast and pre-stressed materials, except when placed or installed by the manufacturer pursuant to its collective bargaining agreement; handling, unloading, loading, assembling and laying of all multiplate; the operating of all air, gas, electric, oil and other types of motor driving tools including all pusher type equipment; all walk behind saws, all concrete saws, drilling and coring equipment; all casings and augers on all drilling rigs; the handling, tending and maintaining of all generators; lasers when used for laborers work on grading, setting and leveling; landscape nurseries; sound barrier installation; demolition or dismantling for all purposes; hazardous waste work to include chemical cleanup, drum handlers, transformers, divers, infra-red destruction machines, plasma arc plants, warehouse storage loading and unloading, safety men, asbestos removal, video x-ray operation; the unloading, loading, handling, stringing, and tending of all brick, all block, all stone and all other masonry products; the paving of all stone and brick products; mason finisher; water proofing, IBC barrier, except on structures; the operating and maintaining of the hydraulic seeder, concrete curb machine, asphalt curb machine, snorkel, stump remover, self-propelled concrete saw, hydraulic motorized pin puller, scissor cars and all aerial man lifts. Bobcat incidental to trade and forklift. Installation and maintenance of all playground fixtures and equipment. The foregoing applies in the performance of all the aforementioned work and all other work coming under the jurisdiction of LIUNA unless state or local requirements dictate otherwise

This Agreement also covers all removal, abatement, encapsulation or decontamination of asbestos, lead and other toxic and hazardous waste or materials, which shall include but not be limited to: the erection, building, moving, servicing and dismantling of all enclosures, scaffolding, barricades, decontamination facilities, negative air machines for asbestos removal, etc.; the operation and servicing of all tools and equipment normally used in asbestos removal or abatement of such waste or materials, including, without limitation, negative air machines for asbestos removal; the sorting, labeling, bagging, cartoning, crating, packaging and movement of such waste or materials for disposal; the clean-up of work site and all other work and stand-by time incidental to the removal, abatement, encapsulation or decontamination of such waste or materials; and the performance of safety watch duties on job sites where work is performed under this Agreement. E.

This Agreement also covers the following, but is not limited to:

1. The preparation of trenches, and footings for above ground or underground lines or cables.
2. The handling of all rods, mesh and material for use in reinforcing concrete construction.
3. The rigging of pipe.

**4. Trenches, Manholes-Cutting of streets and ways for laying of pipes, cables or conduits for all purposes; digging of trenches, ditches, manholes, etc.; handling and conveying all materials; concreting, backfilling, grading and resurfacing and all other labor connected therewith. Clearing and site preparation as described herein. Cutting or jack hammering of streets, roads, sidewalks or aprons by hand or the use of air or other tools. Use and maintenance of all walk behind concrete saws, drilling and coring equipment, all augers and casings on drilling rigs. The leveling, grading and other preparation prior to laying pipe or conduit for any purpose. Loading, unloading, sorting, stockpiling, wrapping, coating, treating, handling, distribution, laying and making of joints of water mains, water pipes, gas mains and all pipe including placing, setting and removal of skids. Cribbing, driving of sheet piling, lagging and shoring of all ditches, trenches and manholes. Handling, mixing or pouring of concrete and handling and placing of other materials for saddles, beds, or foundations for the protection of pipes, wires, conduits, etc. Backfilling and compacting of all ditches, resurfacing of roads, streets, etc., and/or restoration of lawns and landscaping, welding, joining, underwater cable installation. Trenchless technology and directional boring shall be the work of the Laborer.**

**5. Sewers, Drains, Culverts and Multiplate - Unloading, sorting, stockpiling, coating, treating, handling, distribution and lowering or raising of all pipe or multiplate. All digging, driving of sheet piling, lagging, bracing, shoring, and cribbing; breaking of concrete backfilling, tamping, resurfacing and paving of all ditches in preparation for the laying of all pipe. Pipe laying, leveling and making of the joint of any pipe used for main or side sewers and storm sewers. All of the laying of clay, terra-cotta, ironstone, vitrified concrete, ductile iron, or other pipe and the making of joints for main or side sewers and storm sewers and all the pipe for drainage. Unloading, handling, distribution, assembly in place, bolting and lining up of sectional metal or other pipe, including corrugated pipe. Laying of lateral sewer pipe from main sewer or side sewer to building or structure. Laying, leveling and making of the joint of all multicell conduit or multi-purpose pipe. Cutting of holes in walls, footings, piers or other obstructions for the passage of pipe or conduit for any purpose and the pouring of concrete to secure said holes. Digging under streets, roadways, aprons or other paved surfaces for the passage of pipe, by hand, earth auger or any other method and manual and hydraulic jacking of pipe under said surfaces. Installation of septic tanks, cesspools and drain fields. Oil, brine, chemical transmission lines and related work, fiber optics, communication lines and cathodic protection.**

**6. Drilling and Blasting - All work of drilling, jack hammering, and blasting. Operation of all rock and concrete drills, including handling, carrying, laying out of hoses, steel handling, installation of all temporary lines and handling and laying of all blasting mats. All work in connection with blasting, handling and storage of explosives, carrying to point of blasting, loading holes, setting fuses, making primers and exploding charges. All securing of surface with wire mesh and any other material and setting of necessary bolts and rods to anchor same. All high scaling and other rock breaking and removal after blast. Handling and laying of nets and other safety devices and signaling, flagging, road guarding.**

**7. Signal Men -Signal men on all construction work defined herein, including traffic control signal men or flagmen at construction sites.**

**8. Use of Tools -Operation of all hand, pneumatic, electric, motor combustion or air-driven tools or equipment necessary for the performance of work described herein.**

**9. All clean-up, including general, construction, janitorial, final, and micro cleaning; all cleaning and removal of debris, rubbish, and refuse of any type and kind for all trades on all jobs, and final cleaning operation on any project or part thereof before the project or any part thereof is turned over to the owner.**

**F. This Agreement shall also cover all work traditionally performed by Laborers within the jurisdiction of this Agreement.**

## **ARTICLE X ADDENDUM A - TUNNEL WORK**

1. This Addendum A shall cover the construction, alteration, or renovation of all tunnels, shafts, adits, silos, raises, ventilation raises, ducts, underground chambers and all other work where miners are required to work below the surface of the earth and which falls within the jurisdiction of the Laborers International Union of North America.
2. Tunnel work shall be defined as the actual boring, driving, and concreting of tunnels. A shaft and/or silo shall be defined as sinking of any vertical, inclined or declined shaft (including stations) by using shaft sinking methods. Any mining performed off the completed shaft shall be considered tunnel work. Laborers Local 872 Job Description pg. 4 In the event a dispute arises in the differentiation between a tunnel or shaft, the Contractor and the Union shall meet to resolve the dispute.

**Craft: Mechanical Insulator (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Mechanical Insulator-Journeyman .....	73.23
Mechanical Insulator-Foreman.....	77.33
Mechanical Insulator-General Foreman .....	81.43

**ADD ZONE RATE**

In addition to MECHANICAL INSULATOR rates add the applicable amounts per hour, calculated based on a road mile figured from Clark County Courthouse:

Zone 1	20-45 miles	\$4.00
Zone 2	45-75 miles	\$5.00
Zone 3	75-150 miles	\$7.00
Zone 4	150 miles and over	\$8.00

**ADD PREMIUM PAY**

Premium pay for hours worked in excess of a shift of 8 hours or 12 hours or such other time increment set forth in the Collective Bargaining Agreement or on a weekend or holiday

Swing Shift 10% per hour \$4.98

Grave Shift 15% per hour \$7.46

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION:** Excerpt from Agreement between Int' Assoc. of Heat & Frost Insulators and Allied Workers Local 135

This work includes the preparation, alteration, application, erection, assembling, molding, spraying, pouring, mixing, hanging, adjusting, repairing, dismantling, reconditioning, maintenance, finishing, and/or weatherproofing of cold or hot thermal insulation with such materials as may be specified when those materials are to be installed for thermal purposes and fire protection purposes in voids, or to create voids, or on piping, fittings, HVAC ductwork, grease ducts, valves, boilers, ducts, flues, tanks, vats, equipment, or on any hot or cold surfaces for the purpose of thermal control or to be installed for sound attenuation purposes on mechanical devices, equipment, piping, surfaces related in an integral way to the insulation of such mechanical devices, equipment and piping, Nanotechnology, energy audits, thermography, and thermal imaging. This work also includes all labor connected with the handling, truck driving and distribution of thermal insulation on the job premises. This article does not include pre-manufactured insulation or insulation accessories.

3. All duct lining, plenum lining and duct wrapping, done on the jobsite for acoustical or thermal purposes will be the work.

4. All asbestos abatement (removal), toxic waste cleanup, handling and/or the removal of hazardous waste materials from the aforementioned subsection (2) of this Article II, Section A, and the preparation therefore will be the work of this Local Union. Hazardous and toxic materials are any and all materials, which are defined by O.S.H.A. or E.P.A.

5. All thermal tape, pads, mitered fittings (insulation, metal or plastic), batts and lags shall be fabricated by the Employees covered by this Collective Bargaining Agreement when such fabricated items are to be installed by Asbestos Workers, regardless of the location the Employer chooses to have such items fabricated, within the territorial jurisdiction.

6. This Agreement covers the rates of pay, hours and other terms and conditions of employment with firestopping or fireproofing technicians, and apprentices engaged in the manufacture, fabrication, assembling, molding, handling, erection, spraying, pouring, mixing, hanging, preparation, application, adjusting, alteration, repairing, dismantling, reconditioning, testing, and maintenance of the following, when applied by a machine or other application methods of all firestopping materials including, but not limited to: intumescent firestop sealant, intumescent firestop blocks, elastomeric firestop sealant, self-leveling firestop sealant, trowelable firestop compound, firestop collars, composite sheets, putty pads, fire containment pillows, wrap strips, putty sticks, firestop mortar, firestop mastic, refractory ceramic fiber blanket for kitchen exhaust and fire rated duct systems, or other materials used in connection with labor, and to include other fire protection materials such as boots and cable coatings which are connected with the handling or distributing of the above insulating materials, or the repair and maintenance of all equipment, on the job premises. The types of work shall include, but not be limited to: top of wall, curtain wall, fire rated wall penetrations, grease ducts, stairwell pressurization systems, beam, column, and deck fireproofing. Application of materials or devices within or around penetrations and openings in all rated wall or floor assemblies, in order to prevent the passage of fire, smoke, or other gases. The application included all components involved in creating the rated barrier at perimeter slab edges and exterior cavities, the head of gypsum board or concrete walls, joints between rated wall or floor components, and sealing of penetrating items and blank openings.

**Craft: MILLWRIGHT (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Millwright Journeyman.....	71.01
Millwright Welder.....	72.01
Millwright Foreman.....	75.30
Millwright General Foreman.....	80.02

**ADD ZONE RATE**

In addition to MILLWRIGHT rates add the applicable amounts per hour, calculated from Maryland Parkway and Charleston Boulevard, Las Vegas:

Zone 1	0 to 20 Miles	\$0.00
Zone 2	20 to 40 Miles	\$2.50
Zone 3	Over 40 Miles	\$4.25

**ADD PREMIUM PAY**

First two (2) hours outside the regular constituted shift shall be at the rate of time and one-half (1½X).

Saturdays up to the first ten (10) hours shall be at the rate of time and one-half (1½X). All additional hours and Sundays and holidays shall be the rate of double time (2X). When working on Sundays and holidays, there will be one dollar and fifty cents (\$1.50) per hour additional paid to Pension Annuity.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, 4th of July, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, Christmas Day.

**JOB DESCRIPTION** Excerpt from Southwest Regional Council of Carpenters and Affiliated Local Unions Master Labor Agreement

**5006.18**

The work of the millwrights, as spelled out in the Jurisdictional Claims Handbook referenced in Paragraph 5006.17 above, is as follows: The term "MILLWRIGHTS AND MACHINE ERECTORS" shall mean the, unloading, hoisting, rigging, skidding, moving, dismantling, aligning, erecting, assembling, repairing, maintaining and adjusting of all machinery and equipment installed either in buildings, factories, structures, or processing areas, either undercover, underground or elsewhere required to process material, handle, manufacture or service, be it powered or receiving power manually, by steam, gas, electric, gasoline, diesel, nuclear, solar, water, air or chemically; and in industries such as and including but not limited to the following (which are identified for the purpose of description: woodworking plants, canning industries, steel, coffee roasting plants, paper and pulp, cellophane, stone crushing, gravel and sand washing and handling, refineries, grain storage and handling, asphalt plants, sewage disposal and water plants, laundry, bakery, mixing plants, can, bottle and bag packing plants, textile mills, paint mills, breweries and milk processing plants, power plants, aluminum processing or manufacturing plants, and the amusement or entertainment field.

**5006.19**

Also included are installation of mechanical equipment in atomic energy plants, installation of reactors in power plants, installation of control rods and equipment in reactors, installation of mechanical

equipment in rocket missile bases, launchers, launching gantry, floating bases, hydraulic escape doors and any and all component parts thereto either assembled, semi-assembled or disassembled.

#### 5006.20

Further included is the installation of, but not limited to the following: setting of all engines, motors, generators, air compressors and fans, pumps, scales, hoppers, conveyors of all types and sizes and their supports, escalators, man lifts, moving machinery, mechanical operator and/or automatic doors, roll-up doors, mechanical stage equipment, amusement devices, mechanical pin setters and spotters in bowling alleys, refrigeration equipment and installation of all types of equipment necessary and required to process material either in manufacturing or servicing, the handling and installation of pulleys, gears, sheaves, fly wheels, air and vacuum drives, worm drives and gear drives directly or indirectly coupled to motors, belts, chains, screws, legs, boots, guards, boot tanks, all bin valves, turn heads and indicators, shafting, bearing, cable sprockets, cutting all key seats in new and old work, troughs, chippers, filters, calendars, rolls, winders, reminders, slitters, cutters and wrapping machines; blowers, forging machines, rams, hydraulic or otherwise, planing, extruder, ball, dust collectors, equipment in meat packing plants and splicing of ropes and cables.

#### 5006.21

Additionally included are the laying out, fabrication and installation of protection equipment, including machinery guards, the making and setting of templates for machinery, fabrication of bolts, nuts, pins and drilling of holes for any equipment which the millwrights install regardless of materials; all welding and burning regardless of type; fabrication of all lines, hose or tubing used in lubricating machinery installed by millwrights; grinding, cleaning, servicing and machine work necessary for any part of any equipment installed by the millwrights; and the breaking in and trial run, of any equipment or machinery installed by the millwrights

#### 5006.22

When requested in writing by the Millwright Union, individual Employers who are parties to this Agreement shall furnish signed letters promptly on a date mutually agreed upon by both parties, but in no case more than thirty (30) days, on the letterhead of the individual Employer stating he is employing or had employed millwrights on a specific type of work and a specific job and paid the negotiated scale of wages and fringe benefits for such work.

#### 5006.23

The individual Employer and the Local Union will cooperate promptly in attempting to resolve jurisdictional disputes that may arise on any job or project.

Craft: OPERATING ENGINEER (Union Rate)

Prevailing wage rates include the base rate as well as all applicable fringes

**SEE AMENDMENT 4**

Operating Engineers	(SEE GROUP CLASSIFICATIONS)
Group 1.....	83.44
Group 2.....	84.39
Group 3.....	84.68
Group 4.....	86.17
Group 5.....	87.17
Group 6.....	86.39
Group 7.....	87.49
Group 8.....	86.50
Group 9.....	87.60
Group 10.....	86.62
Group 11.....	87.72
Group 12.....	86.79
Group 13.....	86.89
Group 14.....	86.92
Group 15.....	87.00
Group 16.....	87.12
Group 17.....	87.29
Group 18.....	87.39
Group 19.....	87.50
Group 20.....	87.62
Group 21.....	87.79
Group 22.....	87.89
Group 23.....	88.00
Group 24.....	88.12
Group 25.....	88.29
Add \$.50 per hour for "Special" Shift.....	
Add \$1.00 per hour for "Multiple" Shift.....	

**Add Zone Rates See Below**

**Add Premium Pay**

**Operating Engineers JOB DESCRIPTION:** See Below

Craft: OPERATING ENGINEER (Union Rate)  
**CRANES, PILEDRIVING, & HOISTING EQUIPMENT**

**Prevailing wage rates include the base rate as well as all applicable fringes**

**SEE AMENDMENT 4**

Operating Engineers	(SEE GROUP CLASSIFICATIONS)
Group 1.....	86.03
Group 2.....	86.17
Group 3.....	86.39
Group 4.....	86.50
Group 5.....	86.62
Group 6.....	86.79
Group 7.....	86.96
Group 8.....	87.12
Group 9.....	87.80
Group 10.....	87.96
Group 11.....	88.26
Group 12.....	88.59
Group 13.....	88.96
Group 14.....	89.80
Group 15.....	89.96
Group 16.....	90.01
Group 17.....	90.51
Group 18.....	90.96
Group 19.....	92.54
Group 20.....	93.15
Group 21.....	93.76
Group 22.....	94.52
Group 23.....	94.98
Group 24.....	95.48
Add \$.50 per hour for "Special" Shift.....	
Add \$1.00 per hour for "Multiple" Shift.....	

**Add Zone Rates See Below**

**Add Premium Pay**

**Operating Engineers JOB DESCRIPTION:** See Below

Craft: OPERATING ENGINEER (Union Rate)  
**SURVEYOR**

**Prevailing wage rates include the base rate as well as all applicable fringes**

**SEE AMENDMENT 4**

Operating Engineers	(SEE GROUP CLASSIFICATIONS)
Group 1.....	85.36
Group 2.....	86.17
Group 3.....	86.39
Group 4.....	86.67
Group 5.....	86.79
Group 6.....	86.89
Group 7.....	86.92
Group 8.....	87.29
Group 9.....	87.42
Group 10.....	87.92

[Add Zone Rates See Below](#)

[Add Premium Pay](#)

[Operating Engineers JOB DESCRIPTION](#): See Below

Craft: OPERATING ENGINEER (Union Rate)  
**TUNNEL**

**Prevailing wage rates include the base rate as well as all applicable fringes**

**SEE AMENDMENT 4**

Operating Engineers	(SEE GROUP CLASSIFICATIONS)
Group 1.....	85.29
Group 2.....	86.24
Group 3.....	86.53
Group 4.....	86.67
Group 5.....	86.89
Group 6.....	87.00
Group 7.....	87.12
Group 8.....	87.29
Group 9.....	87.42

**ADD ZONE RATE**

In addition to: **OPERATING ENGINEER, CRANES, PILEDRIVING, & HOISTING EQUIPMENT, SURVEYOR AND TUNNEL** rates add the applicable amounts per hour calculated from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 32.5 miles	\$0.00
Zone 2	32.5 to 45 miles	\$3.00
Zone 3	45 to 60 miles	\$4.00
Zone 4	over 60 miles	\$4.50

**ADD PREMIUM PAY**

All time worked before 6:00 A.M. and after 5:00 P.M., or all time worked in excess of eight (8) consecutive hours, exclusive of meal periods, and all work performed on Saturdays, Sundays and holidays, shall be paid at the applicable overtime rate.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**Operating Engineers JOB DESCRIPTION:** Excerpt from NCA and Operating Engineers Local 12

- a. It shall cover work on building, heavy highway and engineering construction, including the construction of, in whole or in part, or the improvement or modification therefore, including any structure or operations which are incidental thereto, the assembly, operation, maintenance and repair of all equipment, vehicles and other facilities, including helicopters used in connection with the performance of the aforementioned work and services and including without limitation the following types of classes of work:
- b. Street and highway work, grading and paving, excavation of earth and rock, grade separations, elevated highways, viaducts, bridges, abutments, retaining walls, subways, airport grading, surfacing and drainage. Electric transmission line and conduit projects, water supply, water development, reclamation, irrigation, drainage and flood control projects, water mains, pipelines sanitation and sewer projects, dams, aqueducts, canals, reservoirs, intakes, channels, levees, revetments, quarrying of breakwater or riprap stone, foundations, pile driving, piers, locks, dikes, river and harbor projects, breakwater, jetties, dredging and tunnels, soil testing and building/inspector. The handling, installation, maintenance, programming and the use of all stationary and/or portable robots. This shall include the use of all robots used in any industry including the nuclear field.
- c. It shall cover all work with the exceptions of the initial setting, positioning and programming of the base station in conjunction with Global Positioning Systems/GPS on the job site.
- d. The construction, erection alteration, repair, modification demolition, addition or improvement, in whole or in part, of building structure including Power Plants, Mines, Solar Energy installations and appurtenances, oil or gas refineries and incidental structures, and including any grading, excavation, or similar operations which are incidental thereto, or the installation, operation, maintenance and repair or equipment, and other facilities used in connection with the performance of such building construction, except where such structures are an incidental or supplemental part of highway and engineering construction, as defined in this Article.
- e. All concrete from work, including but not limited to, the fabrication, construction, placing, erection, rigging and hoisting, stripping and removing of all forms and operation of the forklift lead, pettibone or mobile equipment in reference to all the above work.
- f. All work in connection with tiltup slabs, including but not limited to benchmarks, layout, setting of all forms, blockouts, metal door and window jambs, templates for bolts, lift points, knee braces, all stripping of forms (whether or note to be reused) rigging, setting, plumbing and lining, welding, drilling, ledger bolts, setting of expansion joints and caulking. Also to include forms for stairs and loading docks (setting and stripping), installation of all doors including roll-up, installation of

laminated beams or precast structures, and operation of the forklift in reference to all of the above work.

- g. All work in connection with the hoisting or materials which are to be used by the Carpenters or Building Tradesmen will be rigged, guided and handled by employees covered by the Agreement.
- h. The layout, rigging, tagging, signaling, cutting, burning, welding chain sawing, driving, setting and pulling of all soldier piles, sheet piles, soldier beams and casing, together with all necessary walling, shoring, underpinning, struts, bracing, capping and lagging necessary for construction of subterranean structures of all types to include, but not limited to subways, subway stations, buildings, storm drains, sewers, pipelines and all open cut and over construction projects. Fabrication, construction removal and stripping of all forms both inside and outside the tunnels and drains to include form liners and membranes, whether they be spray on, glue on tack on, composed of any and all building materials to include plastic, neoprene, high density polyethylene, vinyl cork or any other natural or artificial material. Construction of all covers and access mats to include all necessary rigging for setting and removing, whether intermittently or regularly. Installation and removal of all timber decking.
- i. All office modular furniture systems including, but not limited to: the unloading by any means, stockpiling, distribution to point of erection, carrying, handling transportation, uncrating, installing, cleaning, and/or staging of all office, commercial industrial, institutional, and hotel furniture systems, furnishing, etc., including (but not limited to) all components parts (regardless of their materials or method or manner of installation, attachment or connection). Also included will be layout work including the use of level, transit and any other instrument or tool (or adaptable tool) required for the work herein described.
- j. The placing, handling, moving and erection of all materials which fall within the description of work set forth in the Agreement from the site of delivery on the job to the point of the job where the work is to be performed. The erecting and moving all scaffolds and the moving and handling of all materials to be used in erection of scaffolding.
- k. Lubricates moving parts of heavy equipment throughout the project or on the project. Check and fill miscellaneous equipment fluids. Changes oil in machine reservoirs; cleans and replaces oil filters. Remove and replace air and fuel filters. Ensures that automatic lubrication equipment operates correctly, replacing empty drums or malfunctioning lines. Fills automatic dispensers, oil cans, and oil cups. Utilizes fuel stand discharge nozzles and fuel and lube discharge guns. Inspect and operate auxiliary equipment, including boom assembly. Identifies machines and equipment requiring repair or maintenance through provided work orders and specifications. Maintain equipment per manufacturer's requirements. Identifies when and what type of preventive maintenance is required for heavy equipment; performs the maintenance, reporting any need for additional maintenance or repairs. Completes logs, reports, or other documentation related to the installation, replacement, modification, or changing of machine parts and attachments. Removes superfluous oil and grease from machinery, tools, equipment and on the project. Checks tire pressure and inflates tires when necessary.

## Craft: PAINTER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Painter-Journeyman.....	66.62
Painter-Foreman.....	70.71
Painter-General Foreman.....	75.16

**ADD ZONE RATE**

In addition to: PAINTER rates add the applicable amounts per hour Zone Pay shall commence from Maryland Parkway and Charleston Boulevard and shall be paid as follows:

Zone 1	0 to 40 miles	\$0.00
Zone 2	41 to 60 miles	\$2.50
Zone 3	over 60 miles	\$4.25
Laughlin		\$2.00

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**ADD PREMIUM PAY**

One and one half (1 ½) the regular straight time hourly rate shall be paid:

1. For first three (3) hours worked over eight (8) on a regular five (5) day week.
2. For all hours worked on Saturday. Employees shall not work less than four (4) hours.

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked beyond eleven (11) hours shall be paid at two (2 X) times the straight time rate.
2. For all hours worked on Saturday beyond 8 hours (2 X) times the straight time rate.
3. For hours worked Sunday and Recognized Holidays. Employees shall not be employed for less than four (4) hours paid at two (2X) times the straight time rate.

When working a four-ten (4/10) hour shift: all hours worked beyond ten (10) hours shall be paid at double the straight time rate.

\*If there is less than 8 hours between shifts then the 2nd shift becomes a continuation of the 1st shift, and if the majority of the work performed is outside of the regular day shift then it is 7-1/2 hours for 8.

\*Shift Differential: To be paid for all work performed between the hours of 4:30 pm to 5 am and it will be compensated at \$2.00 per hour in addition to the applicable wages. Overtime that falls between these hours will still be paid at the appropriate overtime rate.

**Section 3. SPECIALTY PREMIUM PAY**

a) High Pay- work on an elevated, mechanically operated platform (including but not limited to: swing stage, boatswain chair, crane basket, heck lift) or rappelling work over forty (40) feet, up to and including one hundred (100) feet in height shall be paid at the rate of eighty-five cents (\$0.85) per hour above the base classification. All work over one hundred (100) feet shall be paid at the rate of two dollars (\$2.00) per hour above the base classification.

b) High pay shall be paid in addition to all other premiums involved.

c) Down Hole – Down hole time shall pay in the same increments as high pay.

d) Hazard Pay - Employees required to work inside tunnels, tubes or piping such as work involved at water treatment plants and mining operations shall receive a premium of thirty-five cents (\$0.35) per hour above the base classification. Hazard pay shall be paid in addition to all other premiums involved.

e) Employees working with or applying creosote, coal or hot tar epoxies shall be furnished uniforms or clothing described by OSHA.

f) If a worker is entitled to receive premium pay at any time during his shift he shall receive the premium for the entire shift.

Section 4. INDUSTRIAL PAINTING - Employees performing painting work on industrial projects shall be paid an additional one dollar (\$1.00) per hour above the Taxable Net Wage Rate in addition to any other high time or premium pay.

**JOB DESCRIPTION:** Excerpt from Agreement between PDCA and Allied Trades DC 16

Work will include, but not be limited to: (1) preparation of any surface that is to receive any coating. This is to include, but not be limited to caulking, puttying, spackling, bondo, fiberglass applications and repairs, sealers and primers. The application and removal of all types of coatings and coating systems in relation to all painting, decorating, protective coatings, coating and staining of concrete floors and toppings, waterproofing, masonry restoration, fireproofing, fire retarding, metal polishing, refinishing, sealing, lining, fiber glassing, E-Glass fiberglass, GRG, GFRC, plaster cast, carbon fiber, encapsulating, insulating, metalizing, flame spray, Exterior Insulating Finishing Systems, the application of Venetian Plasters and/or Polymers; (2) each and all such applications, and similar or substitute applications, on all surfaces, interior and exterior, to include, but not be limited to: residences; buildings; structures; industrial, power, chemical and manufacturing plants; bridges; tanks; vats; pipes; stacks; light and high tension poles; parking, traffic and air strip lines; trucks; automobile and railroad cars; ships; aircraft; and all machinery and equipment; (3) any and all material used in preparation, application or removal of any paint, coatings or applications, including, but not limited to: the handling and use of thinners, dryers, sealers, binders, pigments, primers, extenders, air and vapor barriers, emulsions, waxes, stains, mastics, plastics, enamels, acrylics, epoxies, epoxy injection and T-Lock welding, alkydeds, sheet rubber, foams, seamless and tile-like coatings, etc.; (4) all preparation for and removal of any and all materials for finishes, such as deep cleaning, patching, all levels of finishing, taping/finishing, skim coating, pointing, caulking, high pressure water, chemical and abrasive blasting, environmental blasting, wet/dry vacuum work, chemical stripping, scraping, air tooling, bleaching, steam cleaning, asbestos and lead abatement/removal; (5) the inspection of all coatings and/or coating systems during their applications will be performed by members of this International Union.

Industrial projects shall mean new construction or maintenance work performed in the energy, power, water, wastewater, chemical, manufacturing, industrial buildings, heavy highway, bridge, overpass roadway tunnel industry or any other industry requiring the use of protective coatings.

## Craft: PILEDRIIVER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Driverman, Rigman, Bridge and Dock Carpenter.....	70.21
Piledriver Certified Welder.....	71.21
Piledriver-Foreman.....	74.68
Diver-Diving (wet pay).....	125.89
Stand-By Diver.....	75.68
Tender.....	74.68

**ADD ZONE RATE**

In addition to PILEDRIIVER rates add the applicable amounts per hour, calculated from Maryland Parkway and Charleston Boulevard, Las Vegas:

Zone 1	0 to 40 miles	\$0.00
Zone 2	40 to 60 miles	\$2.50
Zone 3	over 60 miles	\$4.25
	Colorado River Region	\$2.00

**ADD PREMIUM PAY**

First two (2) hours outside the regular constituted shift shall be at the rate of time and one-half ( $1\frac{1}{2}X$ ).

Saturdays up to the first ten (10) hours shall be at the rate of time and one-half ( $1\frac{1}{2}X$ ). All additional hours and Sundays and holidays shall be the rate of double time (2X). When working on Sundays and holidays, there will be one dollar and fifty cents (\$1.50) per hour additional paid to Pension Annuity. If it becomes necessary to work on Labor Day, it will be three (3x) the regular wages.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, 4th of July, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, Christmas Day.

**JOB DESCRIPTION** Excerpt from Southwest Regional Council of Carpenters and Affiliated Local Unions Master Labor Agreement

**104.1** The Carpenters claim the layout, rigging, tagging, signaling, cutting, burning, welding, chain sawing, driving, setting and pulling of all soldier piles and soldier beams together with all necessary waling, shoring, underpinning, struts, bracing, capping and lagging necessary for construction of subterranean structures of all types to include, but not limited to subways, subway stations, buildings, storm drains, sewers, pipelines and all open cut and cover construction projects. The Carpenters further claim construction of all covers and access mats to include all necessary rigging for setting and removing, whether intermittently or regularly and installation and removal of timber decking.

(a) In addition to the work identified in Article I, the Pile Divers claim the operation of the following types of equipment when the operation of same is incidental to that work which falls under the jurisdiction of the United Brotherhood of Carpenters and Joiners of America or Pile Drivers Local Union No. 2375; mechanical forklifts of all types, boom trucks and any other mobile equipment as assigned by the employer necessary to complete the work. In addition, the operation of the power pack and vibratory hammer controls when driving or pulling, sheet pile, pile, soldier beams, cassinos or casing.

(1) In the construction of waterfront and marine facilities, such as docks, piers, wharves, bulkheads, jetties, and similar structures, the pile driver classification should continue to apply, up to and including the decking thereof.

- (2)** On all pile driving and caisson work on both land and water, the Pile Driver classification should apply.
- (3)** In the construction of wooden bridges whether over land or over water, when composed of heavy timber, the Pile Driver classification should apply.
- (4)** In the construction of concrete or steel bridges over land, the Pile Driver classification shall apply to the driving of piles and/or caisson work including the forms required for the capping of the piles or caissons immediately top of the piles or caissons. The capping of the piles is herein interpreted as being that concrete, wood, or other material resting on the top of the piles where driven or placed and does not include any further form work above the capping. In many instances it has been found that the capping is called the girder. The above shall apply on such concrete or steel bridges constructed over land, highways, railroads, overpasses and include cloverleafs, interchanges, etc.
- (5)** In the construction of concrete or steel bridges over water, the Pile Driver classification shall apply up to and including all of the form work to the top of the column, piers, or abutments supporting the steel and/or any other superstructures.
- (6)** In the erection of false work, when necessary for the support of work under the Pile Driver classification, then such false work shall fall within their classification. False work necessary for the support of work under the Carpenter classification shall be done within such Carpenter classification, with the exception that where pile driving or power equipment is used for heavy timber false work, then such work shall come under the Pile Driver classification. This would include all rigging, signaling and tagging incidental to the placing of the heavy timber.
- (7)** In the construction of open-cut sewers, the Pile Driver classification shall apply on all piling including wood, steel or concrete sheet piling, all bracing timber and form work incidental to the construction thereof.

## Craft: PLASTERER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

**SEE AMENDMENT 7**

Plasterer-Journeyman.....	59.96
Plasterer-Foreman.....	64.25
Plasterer-General Foreman.....	66.40

**ADD ZONE RATE**

In addition to PLASTERER rates employees performing work on Public Works Projects shall be entitled to the following wage rates for all hours worked, calculated on an air mile radius from the Clark County Regional Justice Center:

Zone 1	0 to 50 miles	\$0.00
Zone 2	Over 50	\$4.00

**ADD PREMIUM PAY**

**OVERTIME** – The first two (2) hours worked outside the regularly constituted shift shall be at the rate of time and one-half (1 ½). All additional hours shall be at the rate of double time (2x). On Saturday work, the first ten (10) hours shall be at time and one-half (1 ½) and all additional hours at double time (2x). Sundays and Holidays shall be at double time (2x). All hours worked after ten (10) hours are at the rate of double time (2x) Monday through Saturday.

For employees on a second shift, all hours worked in excess of seven and one-half (7 ½) hours shall be paid for at the appropriate overtime rate as described above. For employees on a third shift, all hours worked in excess of seven (7) hours shall be paid for at the appropriate overtime rate as described above.

**HIGH TIME** – On jobs where employees are required to work from swinging scaffold, suspended from a rope or cable, bosun chair, brackets, cantilevers or outrigger from the ground, they shall receive an additional one dollar (\$1.00) per hour above the journeyman rate of pay. Employees shall be paid high pay only for actual time of exposure on the scaffold, boatswain chair, outriggers, etc.

**NOZZLE MAN** – The nozzle man applying fireproofing material shall receive \$2.00 above Journeymen Plasterer Base Wage rate for the period in which he operates any nozzle.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, and Christmas Day. If any of the above holidays fall on Sunday, the Monday following shall be considered a legal holiday. Work on such days shall be paid for at double time. No work shall be required on Labor Day, except in cases of extreme urgency.

**JOB DESCRIPTION:** Excerpt from Agreement So NV. Plasterers & AGC/NCA/UBCA

This includes but is not limited to: Smooth and finish surfaces of poured or full systems of EIFS including sticking and shaping of foam pieces or surfaces by adhesive or mechanical installation, all sprayed or troweled on fireproofing, interior cover coats including all plastering systems recognized by our International Association; installation of all types of lath and all lathing trims in any interior or exterior applications; installation and patching of GFRG and GFRC pieces with adhesive or mechanical fastening systems; all cutting, shaping, rodding, carving, leveling,

brooming of rock, water and pool features including all interior swimming pool finishes, but not limited to pebbletech or white plaster finishes; all Venetian or decorative interior plaster ; all acoustical finish systems including, but not limited to, Baswaphon.

Plasterers shall also have jurisdiction over all work or processes which represent technological change, replacement, modification or substitution for the work described above. In addition, Plasterers shall perform any and all work and use any and all new materials or techniques involved in plaster construction including but not limited to what is known as green or sustainable construction technology.

**Craft: PLUMBER/PIPEFITTER (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Plumber/Pipefitter-Journeyman.....	77.21
Plumber/Pipefitter-Foreman.....	82.96
Plumber/Pipefitter-General Foreman.....	88.71

**ADD ZONE RATE**

In addition to PLUMBER/PIPEFITTER rates employees performing work on Public Works Projects shall be entitled to the following wage rates for all hours worked, calculated on an air mile radius from the Clark County Regional Justice Center:

Zone 1	0 to 20 miles	\$0.00
Zone 2	20 to 45 miles	\$3.75
Zone 3	45 to 75 miles	\$7.50
Zone 4	75 miles and over	\$11.25

**ADD PREMIUM PAY**

Overtime – Overtime worked on a regular work day, Monday through Friday, will be paid at a rate of one and one-half (1 ½) times the regular rate of pay for the first two hours worked before or after the regular eight (8) hour shift, and at two (2) times the regular rate of pay for all hours in excess of ten (10) hours. The first ten (10) hours worked on a Saturday will be paid at a rate of one and one-half (1 ½) times the regular rate of pay, and all hours in excess of ten (10), and Sundays and holidays will be paid at two (2) times the regular rate of pay. A work week may consist of four (4) consecutive ten (10) hour days, at regular rate of pay Monday through Thursday with no rotating shifts. Overtime after ten (10) hours per day or forty (40) hours in the four-day week shall be paid at two (2) times the regular rate of pay. Fridays and/or Saturdays will be paid at time and one-half (1 ½) the regular rate of pay for the first eight (8) hours of work. Hours worked after eight (8) hours on Friday and Saturday, and all hours worked on Sunday and holidays shall be at two (2) times the regular rate of pay. An eight (8) hour break between shifts shall be observed.

Shiftwork – Shift work is permitted when the shifts are of five (5) or more day's duration. The first shift shall work a regular eight (8) hour day between the hours of 6 a.m. and 4:30 p.m. The second shift shall work a minimum of eight (8) hours, not including a one-half (½) hour lunch period on the employee's own time and shall receive an additional two (2) dollars per hour. The third shift shall work a minimum of eight (8) hours, not including a one-half (½) hour lunch period on the employee's own time and shall receive an additional four (4) dollars per hour. A second work shift extending past midnight shall be paid at the third shift rate for the entire second shift.

**RECOGNIZED HOLIDAYS**

Holidays - All work performed on the following holidays shall be paid at two (2) times the regular hourly wages: New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. If any of the above holidays fall on a Sunday, the Monday following shall be observed as the holiday. If any of the above holidays fall on a Saturday, the Friday preceding shall be observed as the legal holiday.

**JOB DESCRIPTION** Excerpt from Agreement between MCA and Plumber Pipefitters Serv. Tech  
Local 525

Installation of all plumbing, pipe fitting, and refrigeration systems and component parts thereof, including fabricating, assembling, erecting, installing, testing, balancing, dismantling, repairing, reconditioning, adjusting, altering, servicing and handling, unloading, distributing, tying on and hoisting of all piping materials, by any method, including all hangers and supports of every description, the unloading and setting of kitchen equipment, the testing and balancing of all plumbing and pipefitting systems or component parts thereof, the operation of pumps, air compressors and welding machines, as well as equipment used on building and construction work in conjunction with the work of the trade, as a time and labor saving device.

**Craft: REFRIGERATION MECHANIC (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Refrigeration-Journeyman.....	77.21
Refrigeration -Foreman.....	82.96
Refrigeration -General Foreman .....	88.71

**ADD ZONE RATE**

In addition to REFRIGERATION MECHANIC rates employees performing work on Public Works Projects shall be entitled to the following wage rates for all hours worked, calculated on an air mile radius from the Clark County Regional Justice Center:

Zone 1	0 to 20 miles	\$0.00
Zone 2	20 to 45 miles	\$3.75
Zone 3	45 to 75 miles	\$7.50
Zone 4	75 miles and over	\$11.25

**ADD PREMIUM PAY**

Overtime – Overtime worked on a regular work day, Monday through Friday, will be paid at a rate of one and one-half (1 ½) times the regular rate of pay for the first two hours worked before or after the regular eight (8) hour shift, and at two (2) times the regular rate of pay for all hours in excess of ten (10) hours. The first ten (10) hours worked on a Saturday will be paid at a rate of one and one-half (1 ½) times the regular rate of pay, and all hours in excess of ten (10), and Sundays and holidays will be paid at two (2) times the regular rate of pay. A work week may consist of four (4) consecutive ten (10) hour days, at regular rate of pay Monday through Thursday with no rotating shifts. Overtime after ten (10) hours per day or forty (40) hours in the four-day week shall be paid at two (2) times the regular rate of pay. Fridays and/or Saturdays will be paid at time and one-half (1 ½) the regular rate of pay for the first eight (8) hours of work. Hours worked after eight (8) hours on Friday and Saturday, and all hours worked on Sunday and holidays shall be at two (2) times the regular rate of pay. An eight (8) hour break between shifts shall be observed.

Shiftwork – Shift work is permitted when the shifts are of five (5) or more day's duration. The first shift shall work a regular eight (8) hour day between the hours of 6 a.m. and 4:30 p.m. The second shift shall work a minimum of eight (8) hours, not including a one-half (½) hour lunch period on the employee's own time and shall receive an additional two (2) dollars per hour. The third shift shall work a minimum of eight (8) hours, not including a one-half (½) hour lunch period on the employee's own time and shall receive an additional four (4) dollars per hour. A second work shift extending past midnight shall be paid at the third shift rate for the entire second shift.

**RECOGNIZED HOLIDAYS**

Holidays - All work performed on the following holidays shall be paid at two (2) times the regular hourly wages: New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. If any of the above holidays fall on a Sunday, the Monday following shall be observed as the holiday. If any of the above holidays fall on a Saturday, the Friday preceding shall be observed as the legal holiday.

**JOB DESCRIPTION**

1. Installing and repairing industrial and commercial refrigeration systems;

2. Mounting compressors, condensers and other refrigeration components to the frame of a refrigerator by using hand tools and acetylene welding equipment;
3. Assembling structural and functional components needed for refrigeration, including, without limitation, controls, switches, gauges, wiring harnesses, valves, pumps, compressors, condensers, cores and pipes;
4. Installing expansion and control valves by using hand tools and acetylene welding equipment;
5. Cutting, bending, threading and connecting pipe from functional components to water, power or refrigeration systems;
6. Fabricating and assembling components and structural portions of a refrigeration system;

Craft: ROOFER (Union Rate)  
(Does not include sheet metal roofs)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Rofer-Journeyman.....	44.68
Rofer-Foreman.....	51.52

**ADD PREMIUM PAY**

Any work performed in excess of ten (10) hours per day or forty (40) hours per week shall be paid at the rate of one and one half (1 1/2) times the regular straight time rate of pay.

Two times (2x) the regular wage shall be paid for all work performed on Sundays.

Two times (2x) the regular wage shall be paid for work performed on a Holiday designated under this Agreement.

Work performed on a Saturday shall be paid at the regular wage unless the work qualifies for overtime under the terms of this section.

**RECOGNIZED HOLIDAYS**

New Year's Day, Washington's Birthday (President's Day), Memorial Day, 4th of July, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, Christmas Day.

**JOB DESCRIPTION** Excerpt from Roofers, Waterproofers, and Allied Workers Local 162

Slate and Tile roofers shall include in their work jurisdiction the following work processes and types of materials. These shall include but not limited to:

1. All slate where used for roofing of any size, shape or color, used in any manner laid, including flat or promenade slates, with necessary metal flashing to make water-tight.
2. All tile where used for roofing of any size, shape or color, used in any manner laid, including flat or promenade tile, with necessary metal flashing to make watertight.
3. All asbestos shingles where used for roofing of any size, shape or color, and in any manner, laid with necessary metal flashing to make watertight.
4. All cementing in, on or around the said slate or tile roof or promenade.
5. All laying of felt, paper, membranes, ice shields, vapor barriers or similar underlayments on substrates.
6. All dressing, punching and cutting of all roof slate or tile.
7. All operation of slate cutting or punching machinery.
8. All substitute material taking the place of slate or tile, as asbestos slate or tile, cement or composition tile, including shingles of composition wood and metal tile.
9. All removal of slate or tile roofing as defined above when a roof is to be reapplied in their place.
10. All solar or photovoltaic cell-type roofing systems used to transform solar energy to electrical energy.

Section 4. Composition roofers and damp and waterproof workers shall include in their work jurisdiction the following work processes and types of materials. These shall include but not limited to:

1. All organic or inorganic felts and fabrics that comprise the reinforcing membrane of built-up roofing and waterproofing systems.
2. All waterproofing using bituminous products whether structures are above or below grade.

3. All forms of plastic, slate, slag, gravel, or rock roofing, including all types of aggregates, blocks, bricks, stones or pavers used to ballast or protect Inverted Roof Membrane Assembly (IRMA) roofs, or roofs of similar construction where the insulation is laid over the roof membrane.
4. All kinds of asphalt and composition roofing and waterproofing.
5. All base flashings, curb flashings, and counter flashings of bituminous composition used to roof or waterproof intersections of horizontal surfaces.
6. All components of composition roofing systems used to seal the roof, including but not limited to compression seals, termination bars, lath, roof cement and reinforcements, caulking and sealants.
7. All kinds of coal tar pitch and coal tar bitumen roofing and waterproofing.
8. All cleaning, preparing, priming and sealing of roof decks and surfaces that receive roofing, dampproofing and/or waterproofing.
9. All rock asphalt and composition roofing.
10. All rock asphalt mastic when used for damp and waterproofing.
11. All prepared paper roofing.
12. All mineral surfaced roofing, including 90lb., and 818, whether nailed, mopped with bitumen, or applied with mastic or adhesive.
13. All compressed paper, chemically prepared paper, and burlap when used for roofing or damp and waterproofing purposes, with or without coating.
14. All substrates used on the roof deck for fireproofing or any materials used as a support or nailing surface for the roofing system over the deck.
15. All damp resisting preparations when applied with a mop, brush, roller, swab, trowel, or spray system inside or outside of structure.
16. All damp course, sheeting or coating on all foundation work.
17. All tarred floors.
18. All wood block floors that are set in and/or coated with bituminous products.
19. All waterproofing of shower pans and/or stalls.
20. All laying of tile, wood block or brick, when laid in pitch, tar, asphalt mastic, marmolite, or any form of bituminous products.
21. All forms of insulation used as part of, or in connection with, roofing, waterproofing or dampproofing.
22. All forms of composite insulations having nailable surfaces (e.g. plywood, pressboard, chipboard, drywall, or other laminates) bonded to the insulation wherever such composite insulations are used as an integral thermal insulating component of the roofing system.
23. All forms of protection boards, walkway pads and roof treads used in composition roofing or waterproofing to protect the membrane from damage.
24. All types of coatings, toppings and finishes used on the roof surfaces.
25. All solar or photovoltaic cell-type structures that are used as substitutes for ballast or membrane protection.
26. All solar or photovoltaic cell-type roof membrane systems used to transform solar energy to electrical energy.

Section 5. Composition roofers and damp and waterproof workers shall also include in their work jurisdiction the following work processes and types of materials. These shall include but not limited to:

1. All forms of elastomeric and/or plastic (elasto-plastic) roofing systems, both sheet and liquid applied, whether single-ply or multi-ply. These shall include but not limited to:
  - a. PVC (polyvinyl chloride systems)
  - b. Butyl Rubber
  - c. EPDM (Ethylene-propylene diene monomer)
  - d. PIB (polyisobutylene)
  - e. CPE (chlorinated polyethylene)
  - f. CSPE (chlorosulfonated polyethylene)

- g. Modified bitumens
- h. TPO Membrane (Thermo Plastic Olefin)

2. All sealing and caulking of seams and joints on these roofing systems by heat or solvent welding or by adhesives or butyl tapes or any other means.
3. All base flashings, curb flashings and counter flashings of elasto-plastic composition as outlined
4. All components of elasto-plastic roofing systems used to seal the roof including but not limited to, compression seals, termination bars, caulking and sealants.
5. All insulations applied with the above systems, whether laid dry, mechanically fastened, or attached with adhesives, to include any gypsum board and/or fire barrier required.
6. All forms of composite insulations having nailable surfaces (e.g. plywood, chipboard, drywall, or other laminates) bonded to the insulation wherever such composite insulations are used as an integral thermal insulating component of the roofing system.
7. All types of aggregates, blocks, bricks, stones, or units of photovoltaic cell construction used to ballast these elasto-plastic systems.
8. All types of aggregates, blocks, stones, pavers or units of photovoltaic cell construction used to ballast or protect Inverted Roofing Membrane Assembly (IRMA) roofs, or roofs of similar construction where the insulation is laid over the roof membrane.
9. All sealing and caulking of seams and joints on these elasto-plastic systems to ensure watertightness.
10. All liquid-type elasto-plastic preparations for roofing, damp or waterproofing when applied with a squeegee, trowel, roller or spray equipment, whether applied inside or outside of the building.
11. All sheet-type, elasto-plastic systems, whether single or multi-ply for waterproofing either inside or outside of a building.
12. All cleaning, preparing, priming and sealing of surfaces to be roofed, dampproofed or waterproofed, whether done by roller, mop, swab, three-knot brush, squeegee, spray systems, or any other means of application.
13. All types of pre-formed panels and rolls used in waterproofing (Volclay, Bentonite etc.)
14. All applications of protection boards to prevent damage to the dampproofing or waterproofing membrane by other crafts or during back-filling operations.
15. All handling of roofing, damp and waterproofing materials.
16. All hoisting and storing of roofing, damp and waterproofing materials.
17. All types of spray-in-place foams such as urethane, polyurethane, or polyisocyanurate, the machinery and equipment used to apply them, and the coatings that are applied over them.
18. All types of resaturants, coatings, mastics and toppings when used for roof maintenance and repairs.
19. All wrapping and/or coating of underground pipelines with bitumastic enamel or cold process, polykin tape, tapecoat, or other asphaltic coatings or tape inside or outside of pipe, whether done by roller, mop, swab, three-knot brush, or spray systems. Preparation of surface by sand blasting or wire brushing.
20. All operation of jeeper or holiday detectors.
21. All Zonolite or Cellular Concrete Roof Insulation and all materials, the machinery and equipment used to apply them.
22. All materials laminated to roofing and/or insulation systems.

**Craft: SHEET METAL WORKERS (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Sheet Metal Worker Journeyman.....	83.66
Sheet Metal Worker -Foreman.....	89.01
Sheet Metal Worker -General Foreman.....	94.36

**ADD ZONE RATE**

In addition to SHEET METAL WORKER rates add the applicable amounts per hour, calculated on a radius from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 30 miles	\$0.00
Zone 2	31 to 50 miles	\$2.50
Zone 3	51 to 100 miles	\$3.50 (including Laughlin)
Zone 4	Over 100 miles	\$5.00

**ADD PREMIUM PAY**

All work performed outside the regular working hours and performed during the regular work week shall be at one and one-half (1½) times the straight time rate of pay. Sunday and Holidays shall be paid at double (2) times the straight time of pay.

**RECOGNIZED HOLIDAYS**

New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday following Thanksgiving Day, Christmas Eve Day, Christmas Day, or days locally observed as such, and Sunday shall be recognized as holidays.

**JOB DESCRIPTION:** Excerpt from Sheet Metal Local 88 Collective Bargaining Agreement

(a) Manufacture, fabrication, assembling, handling, erection, installation, dismantling, conditioning, adjustment, alteration, repairing and servicing of all ferrous or nonferrous metal work and all other materials used in lieu thereof and of all HVAC systems, air veyor systems, exhaust systems, and air-handling systems regardless of material used including the setting of all equipment and all reinforcements in connection therewith; (b) all lagging over insulation and all duct lining; (c) testing and balancing of all air handling equipment and duct work; (d) the preparation of all shop and field sketches whether manually drawn or computer assisted used in fabrication and erection, including those taken from original architectural and engineering drawings or sketches; (e) metal exterior wall systems, metal roofing and underlayment regardless of material used; (f) any and all auditing, commissioning and testing, of all HVAC in connection with a building rating methods; detailing, shop fabrication, field installation and performance oriented tasks and (g) all other work included in the jurisdictional claims of International Association of Sheet Metal, Air, Rail and Transportation Workers.

Craft: SPRINKLER FITTER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Sprinkler Fitter-Journeyman.....	75.41
Sprinkler Fitter-Foreman.....	78.41
Sprinkler Fitter-General Foreman.....	80.91

**RECOGNIZED HOLIDAYS**

New Year's Day, Memorial Day, 4th of July, Labor Day, Thanksgiving Day, Christmas Day.

**ADD PREMIUM PAY**

Premium pay for hours worked in excess of a shift of 8 hours or 12 hours or such other time increment set forth in the Collective Bargaining Agreement or on a weekend or holiday.

**JOB DESCRIPTION** Excerpt from between National Fire Sprinkler Assoc. and Road Sprinklerfitters Local 669

Installing, dismantling, maintenance, repairs, adjustments and corrections of all fire protection and fire control systems Including the unloading, handling by hand, power equipment and installation of all piping or tubing, appurtenances and equipment pertaining thereto, including both overhead and underground water mains, fire hydrants and hydrant mains, standpipes, and hose connections to sprinkler systems, sprinkler tank heaters, air lines and thermal systems used in connection with sprinkler and alarms systems, also all tanks and pumps connected thereto. Also including shall be CO2 and Cardox Systems, Dry Chemical Systems, Foam Systems and all other fire protection systems, but excluding steam fire protection systems.

## Craft: TAPER (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Taper-Journeyman.....	66.62
Taper-Foreman.....	70.71
Taper-General Foreman.....	75.16

**ADD ZONE RATE**

In addition to: TAPER rates add the applicable amounts per hour Zone Pay shall commence from Maryland Parkway and Charleston Boulevard and shall be paid as follows:

Zone 1	0 to 40 miles	\$0.00
Zone 2	41 to 60 miles	\$2.50
Zone 3	over 60 miles	\$4.25
Laughlin		\$2.00

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**ADD PREMIUM PAY**

One and one half (1 ½) the regular straight time hourly rate shall be paid:

1. For first three (3) hours worked over eight (8) on a regular five (5) day week.
2. For all hours worked on Saturday. Employees shall not work less than four (4) hours.

Double the regular straight time hourly rate shall be paid for all time:

1. For all hours worked beyond eleven (11) hours shall be paid at two (2 X) times the straight time rate.
2. For all hours worked on Saturday beyond 8 hours (2 X) times the straight time rate.
3. For hours worked Sunday and Recognized Holidays. Employees shall not be employed for less than four (4) hours paid at two (2X) times the straight time rate.

\*If there is less than 8 hours between shifts then the 2nd shift becomes a continuation of the 1st shift, and if the majority of the work performed is outside of the regular day shift then it is 7-1/2 hours for 8.

\*Shift Differential: To be paid for all work performed between the hours of 4:30 pm to 5 am and it will be compensated at \$2.00 per hour in addition to the applicable wages. Overtime that falls between these hours will still be paid at the appropriate overtime rate.

**Section 3. SPECIALTY PREMIUM PAY**

a) High Pay- work on an elevated, mechanically operated platform (including but not limited to: swing stage, boatswain chair, crane basket, heck lift) or rappelling work over forty (40) feet, up to and including one hundred (100) feet in height shall be paid at the rate of eighty-five cents (\$0.85) per hour above the base classification. All work over one hundred (100) feet shall be paid at the rate of two dollars (\$2.00) per hour above the base classification.

b) High pay shall be paid in addition to all other premiums involved.

c) Down Hole – Down hole time shall pay in the same increments as high pay.

d) Hazard Pay - Employees required to work inside tunnels, tubes or piping such as work involved at water treatment plants and mining operations shall receive a premium of thirty-five cents (\$0.35) per hour above the base classification. Hazard pay shall be paid in addition to all other premiums involved.

e) Employees working with or applying creosote, coal or hot tar epoxies shall be furnished uniforms or clothing described by OSHA.

f) If a worker is entitled to receive premium pay at any time during his shift he shall receive the premium for the entire shift.

**JOB DESCRIPTION:** Excerpt from Agreement between PDCA and Allied Trades DC 16

Excerpt from Drywall Finishing work will include, but not be limited to: (1) the preparation or leveling of any surface or substrate which is to receive a coating, finish and/or wall covering; this will include, but not be limited to, all levels of finishing and/or spackling of all surfaces, including gypsum wallboard taping and finishing, fire taping and all firestopping systems, glaze coatings, skim coating or any other finishing system, spotting of nails, finishing of corner beads/flex beads. Patching and sanding is within the system of preparing surfaces for finishes. (2) all stucco and dryvit systems will be performed by members of this International Union.

Craft: TILE SETTER/TERRAZZO WORKER/MARBLE MASON (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Tile Setter/Terrazzo Worker/Marble Mason- Finisher.....	46.54
Tile Setter.....	62.28
Terrazzo Worker/Marble Mason .....	64.91

**ADD ZONE RATE**

In addition to: TILE/TERRAZZO WORKER/MARBLE MASON rates add the applicable amounts per hour Zone Pay shall commence from Maryland Parkway and Charleston Boulevard and shall be paid as follows:

Zone 1	0 to 40 miles	\$0.00
Zone 2	40 to 50 miles	\$3.75
Zone 3	50 to 70 miles	\$5.00
Zone 4	Over 70 miles	\$10.00

**ADD PREMIUM PAY**

All work in excess of forty (40) hours during the established work week shall be paid at the rate of one and one-half (1-1/2) times the hourly base wage rate in effect.

Employees shall be paid one and one-half (1-1/2) times the hourly wage rate for all hours worked over eight (8) in a single day and double time after ten (10) hours in a single day, Monday through Friday, except recognized holidays.

Daily Overtime Saturdays the first ten (10) hours performed on Saturday shall be paid at one and one-half (1-1/2) times the straight time wage rate.

Daily Overtime Sunday- Employees shall be paid double time on Sundays if forty (40) straight time hours have been worked during the proceeding work week.

Holidays shall be paid double time for hours owed on recognized holidays.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day. Any holiday falling on a Sunday will be observed on Monday.

**JOB DESCRIPTION:** Excerpt from Agreement between BAC 13 Nevada of the Mountain West Administrative District Council Master Labor Agreement

***FINISHER'S WORK:***

Finisher's work shall consist of assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments. required to complete the proper installation of the work covered by Sections 5, 7 and 8 of this Code.

### *TILE LAYERS' WORK:*

Tile laying shall consist of, but not be limited to, the following work procedures and installation of the following materials:

A. The laying, cutting or setting of all tile where used for floors, walls, ceilings, walks, promenade roofs, stair treads, stair risers, facings, hearths, fireplaces, and decorative inserts, together with any marble plinths, thresholds or window stools used in connection with any tile work; also, preparing and setting all concrete, cement, brickwork, or other foundation or materials that may be required to properly set and complete such work; setting or bedding all tiling, stone, marble, composition, glass, mosaic, or other materials forming the facing, hearth or fireplace of a mantel, or the mantel complete, together with setting of all cement, brickwork, or other materials required in connection with the above work; also the slabbing and fabrication of tile mantels, counters and tile panels of every description, and the erection and installation of same; the building, shaping, forming, construction or repairing of all fireplace work, whether in connection with a mantel hearth facing or not, and the setting and preparing of all material, such as cement, plaster, mortar, brickwork, iron work or other materials necessary for the proper and safe construction and completion of such work, except that a mantel made exclusively of brick, marble or stone, shall be conceded to be bricklayers', marble setters' or stonemasons' work, respectively.

B. It will be understood that the word "tile" refers to all burned clay products, as used in the tile industry, either glazed or unglazed, and to all composition materials made in single units up to 15"x20"x2", except quarry tiles larger than 9"x9"x1 1/4", also to mixtures in tile form of cement, plastics and metals that are made for and intended for use as a finished floor surface, whether upon interior or exterior floors, stair treads, promenade roofs, garden walks, interior walls, ceilings, swimming pools, and all places where tile may be used to form a finished surface for practical use, sanitary finish or decorative purposes, for setting all accessories in connection therewith, or for decorative inserts in other materials.

C. All terra cotta called unit tile in sizes of 6"x12" or under, regardless of method of installation, quarry tile 9"x9"x1 1/4" or less; split brick or quarry tile or similar material where the bed is floated or screeded and the joints grouted. Where the work is installed by tile layers, the grouting and cleaning shall be supervised by the mechanic. The bedding, jointing, and pointing of the above materials shall be the work of the craft installing the same. All clay products known as terra cotta tile, unit tile, ceramic veneer and machine-made terra cotta, and like materials in sizes 6"x12" and less regardless of the method of installation. Where the preponderance of materials to be installed comes within the provisions of this Section and when there is also some material in excess of the sizes provided for in this Section, the tile setter shall install all such materials.

D. The preparation, setup, calibration, operation, cleaning, and routine maintenance of any mechanical devices or robotics used to install tile and related materials, or that otherwise assist the tile layer in performing any of the work described in Article II and Code 1 of the IU Constitution, as well as the preparation and ongoing maintenance of the work area to allow proper installation of tile and related materials.

Craft: TRAFFIC BARRIER ERECTOR (Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Traffic Barrier Erector.....62.99

**ADD ZONE RATE**

In addition to: TRAFFIC BARRIER ERECTOR rates add the applicable amounts per hour, calculated based on a miles from the City Hall of Las Vegas, Nevada:

Zone 1	0 to 50 miles	\$0.00
Zone 2	50 miles and Over	\$3.75 including Laughlin area

**ADD PREMIUM PAY**

The first three (3) hours worked outside the regular constituted shift shall be at the rate of time and one half. All additional hours shall be at double time. On Saturday work, the first (10) hours shall be at time and one half and all additional hours at double time. Sundays and holidays hall be at double time.

**RECOGNIZED HOLIDAYS**

New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION**

Erects or places instruments to provide directional assistance to traffic on or near the public works construction project.

**Craft: Truck Driver (Union Rate)****Prevailing wage rates include the base rate as well as all applicable fringes**

Truck Driver	(SEE GROUP CLASSIFICATIONS)
Group 1.....	63.52
Group 2.....	63.62
Group 3.....	63.83
Group 4.....	64.01
Group 5.....	64.16
Group 6.....	64.51
Foreman \$1.00 above highest paid journeyman supervised.	

**ADD ZONE RATE**

In addition to: TRUCK DRIVER rates add the applicable amounts per hour Zone Pay shall commence from Maryland Parkway and Charleston Boulevard and shall be paid as follows:

Zone 1	0 to 20 miles	\$0.00
Zone 2	20 to 40 miles	\$1.50
Zone 3	40 to 60 miles	\$2.50
Zone 4	Over 60 miles	\$3.50

**ADD PREMIUM PAY**

All time worked in excess of eight (8) consecutive hours, exclusive of meal period, or all time worked in excess of forty (40) hours per week and all work performed on Saturday and Sunday, and holidays shall be paid at the overtime rate.

**RECOGNIZED HOLIDAYS**

New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Christmas Day.

**JOB DESCRIPTION**

Driving a tractor trailer combination or a truck transport goods or materials at the site of a public work or between sites of a public work.

(Also, see descriptions listed with Truck Driver rates, if any)

Craft: WELL DRILLER (Non-Union Rate)

**Prevailing wage rates include the base rate as well as all applicable fringes**

Well Driller.....45.24

**JOB DESCRIPTIONS**

1. Setting, operating or tending to portable drilling rig machinery and related equipment to drill wells;
2. Extending stabilizing jackscrews to support and level a drilling rig;
3. Installing water well pumps;
4. Drillings wells for industrial water supplies, irrigation water supplies or water supplies for any other purpose; dewatering or other similar purposes; exploration; hole drilling for geologic and hydrologic information; and core drilling for geologic information.

# GROUP CLASSIFICATIONS

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## LABORER

### Group 1

- Traffic Control Tech and working Traffic Control Supervisor
- All pressure washing, all surface preparation for patching and grouting, dry packing of concrete and filling of form bolt holes
- Subgrade, finish/fine grade with use of granule or non-granule material, vapor barriers, lasers, string line, setting and leveling on highway, street paving, sidewalk, driveways, airport runways and similar type heavy construction
- Gas and oil pipeline
- Guinea chaser
- Laborer, general, construction, demolition, surgical demolition, selective demolition or Solar- Stringing of posts, installation of posts and piles, installation and bolting together of all rakes, tray tables and torque tubes. Running all bobcats, skid steers, forklifts, Turchis or similar equipment for post installation. Trashing out crates, card board boxes and trash within the solar arrays and Solar project boundaries.
- Laborer, packing rod steel and pans
- Laborer, temporary water lines (portable type)
- Laborer, loading and unloading solar panels, crates and pallets
- Laborer, handling, installing, and setting of all solar panels/ wire management but not connections Landscape gardener (Must have knowledge of plant materials and how to plant them. Lays out plant arrangements to-follow the landscape plan)
- Stone pavers
- Nurseryman
- Tarman and mortar man, kettle man, potman and man applying asphalt, lay cold creosote, fine and similar type materials. ("Applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and water proofing.)
- Underground laborer, including caisson bellows
- Window cleaner
- Scaffold Erector - (Excludes Tenders)
- Fence Erector includes but not limited to: erecting or repairing, Chain Link, wooden, metal, vinyl, steel, tortoise, wire/ wire mesh or temporary fence. Mortarless, Barrier Wall and/or Retaining Walls; Digging post holes with spade. Post hole digger or power-driven auger; Aligning post through the use of lines or by sighting; verifying vertical alignment of post with a plumb bob or spirit level.
- Mechanical Stabilized Earth Wall
- Material Handler - for all trades, including but not limited to stacking and packing of all drywall, taping mud, paint, wallpaper, wall coverings and material associated there with including Demolition of said materials.
- All Construction cleanup and Final clean-up (picking up debris, sweeping, scraping and janitorial work, including final clean-up), on all jobsites shall be the work of the Laborers, including mass jobsite clean-up by All Contractors and Sub- Contractors. except as provided in Group 1A
- Tool Crib
- Light Tool Repairman Certified
- Firewatch
- Rigging and signaling when assigned by the Contractor and/or performing the work of a

Laborer or tending another craft

### **Group 1A**

- Flagger/flag person
- Pilot car

Final clean up subject to this rate shall mean:

- Polishing furniture
- Polishing stainless steel in hotel kitchens
- Sweeping and vacuuming hallways and finished rooms and completed casino areas
- Washing windows on first floor and similar duties

### **Group 2**

- Asphalt raker, ironer, spreader, and luteman Buggymobile man
- Cesspool digger and installer Chuck tender (except tunnels)
- Gas and oil pipeline wrapper, pot tender and form man Making and caulking of all non-metallic pipe joints
- Operators and tenders of pneumatic and electric tools, video x-ray, vibrating machines, hand propelled trenching machines, vacuum truck/ hydro excavation operation, and all associated components for its operation, impact wrench multi-plate and similar mechanical tools not separately classified herein Riprap stonepaver
- Rota-scraper
- Sandblaster (pot tender)
- Septic tank digger and installer (lead man) Tank scaler and cleaner
- Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredders

### **Group 3**

- Cutting torch operator Welding in connection with laborers work Gas and oil pipeline wrapper
- Gas and oil pipeline laborer, certified Jackhammer and/or pavement beaker
- Installing, laying and the connections of all metallic and non-metallic pipe, p.v.c. and drop inlet and duct bank, including landscape sprinklers, sewer pipe, drain pipe and underground tile
- Cement dumper (on one yard or larger mixers and handling bulk cement) Concrete core cutter
- Concrete curer, impervious membrane and oiler of all materials
- Concrete saw man, excluding tractor type, cutting scoring old or new concrete Operator of cement grinding machine
- Rock slinger
- Scaler (using boswain chair or safety belt or power tools under 100 feet)
- Forklift - A journeyman shall hold Forklift certification at time of referral for duration of employment. Bobcat/skid steer, Gannon tractor
- Working Dust control monitor, Single Axle water and Single Axle Dump Trucks Hodcarrier-Mason Tender/Mason Finisher
- Decorative Rock Installer - (Ponds, Waterfalls, etc.) Concrete striking, floating, epoxy finish, self-leveling material, and overlay
- Shotcrete/Gunnite

### **Group 3A**

- Placement of all concrete, including red concrete by any means Concrete Specialists
- Mudd Cutter
- Concrete vibrator operator, all sizes

- Concrete Dumper
- Slickline/Hoseman/Dumpman

**Group 4**

- Cribber or shorer, lagging, sheeting, trench bracing, hand guided lagging hammer head rock slinger
- Powderman-blaster, all work of loading holes, placing and blasting of all powder and explosives if whatever type, regardless of method used for such loading and placing
- Sandblaster (nozzleman) Steel header-board man Construction Specialist

**Group 5**

- Driller (core, diamond or wagon),
- Air track drill (all types)
- Joy driller model TW-M-2A. Gardner-Denver model DH 143 and similar type drills (in accordance with Memorandum of Understanding between Laborers and Operating Engineers dated Miami, Florida, February 3, 1954)
- Gas and oil pipeline fusion
- Gas and oil pipeline wrappers, 6" pipe and over

**Group 6**

- Miner and Bullgang
- Shaft, Raid, Stope, Miner
- Miner-Tunnel (Hardrock)
- Bull Gang
- Mucker
- Trackman
- Miner-Welder Pipe Jacking
- Micro-Tunneling
- Tunnel Boring Machine
- High-Scaler

**Group 7**

- Asbestos Abatement
- Lead Abatement
- Hazardous Waste Abatement
- Petro-Chemical Abatement
- Radiation Remediation
- Microbial Remediation
- \$.50 wage rate above group III when wearing protective suite or respirator
- Employees shall be properly certified and/or licensed at time of dispatch.

**OPERATING ENGINEER, includes but is not limited to:****Group 1**

- Bargeman
- Blade Operator Assistant
- Brakeman
- Compressor Operator
- Ditch Witch, with seat or similar type equipment
- Elevator Operator - inside
- Engineer Oiler
- Forklift Operator (under 5 Tons)
- Generator Operator
- Generator, Pump or Compressor Plant Operator
- Inertial Profiler
- Pump Operator
- Signalman
- Steam Cleaner/Pressure Washer
- Switchman

**Group 2**

- Asphalt-Rubber Plant Operator (Nurse Tank Operator)
- Concrete Mixer Operator - Skip type
- Conveyor Operator
- Fireman
- Forklift Operator (over 5 Tons)
- Heliostat assembly System (Operator Related Work)
- Hydrostatic Pump Operator
- Oiler Crusher (Asphalt or Concrete Plant)
- PJU Side Dump Jack
- Profilograph
- Rotary Drill Helper (Oilfield)
- Screening and Conveyor Machine Operator (or similar types)
- Skiploader (wheel type up to  $\frac{3}{4}$  yd. without attachment)
- Tar Pot Fireman
- Temporary Heating Plant Operator
- Trenching Machine Oiler

**Group 3**

- Asphalt-Rubber Blend Operator
- Bobcat or similar type (Skid Steer)
- Ford Ferguson (with dragtype attachments)
- Helicopter Radioman (ground)
- Stationary Pipe Wrapping and Cleaning Machine Operator

**Group 4**

- All Terrain Placers/All Terrain Stone Slingers
- Asphalt Plant Fireman
- Backhoe Operator (Mini-Max or similar type)
- Boring Machine and/or pilot Tube Machine Operator
- Boring System Electronic Tracking Locator

- Boxman or Mixerman (Asphalt or Concrete)
- Chip Spreading Machine Operator
- Concrete Cleaning Decontamination Machine Operator
- Concrete Pump Operator (small portable)
- Drilling Machine Operator, Small Auger Types (Texoma Super Economatic, or similar types - Hughes 100 or 200, or similar types - drilling depth of 30' maximum)
- Excavator Track/Rubber-Tired-wth all attachments (Operating weight under 21,000lbs)
- Guard Rail Post Driver Operator
- Highline Cableway Signalman
- Horizontal Directional Drilling Machine
- Hydraulic Casing Oscillator Operator-drilling depth of 30'maximum
- Hydrovac Operator
- Hydra-Hammer-Aero Stomper
- Micro Tunneling (above ground tunnel)
- Power Concrete Curing Machine Operator
- Power Concrete Saw Operator
- Power - Driven Jumbo Form Setter Operator
- Power Sweeper Operator
- Rock Wheel Saw/Trencher
- Roller Operator (compacting)
- Screed Operator (Asphalt or Concrete)
- Trenching Machine Operator (up to 6 ft.)
- Vacuum or Muck Truck

**Group 5**

- Equipment Greaser (Grease Truck/Multi-Shift)

**Group 6**

- Articulating Material Hauler
- Asphalt Plant Engineer
- Batch Plant Operator
- Bit Sharpener
- Concrete Joint Machine Operator (canal and similar type)
- Concrete Placer Operator
- Concrete Planer
- Dandy Digger
- Deck Engine Operator
- Deck Engineer
- Derrickman (Oilfield type)
- DeSanding Plant Operator
- Drilling Machine Operator, Bucket or Auger Types (Calweld 100 Bucket or similar types - Watson 1000 Auger or similar types - Texoma 330, 500 or 600 Auger or similar types - drilling depth of 45' maximum)
- Drilling Machine Operator (including water wells)
- Force Feed Loader
- High Rail Swivel Dump
- Hydraulic Casing Oscillator Operator
- Hydro Seeder Machine Operator (straw, pulp or seed)

- Jackson Track Maintainer, or similar type
- Kalamazoo Switch Tamper, or similar type
- Machine Tool Operator
- Maginnis Internal Full Slab Vibrator
- Mechanical Berm, curb or gutter (concrete or asphalt)
- Mechanical Finisher Operator (concrete, Clary-Johnson-Bidwell or similar)
- Micro Tunnel System (below ground)
- MST 2200, Track Dumps
- Pavement Breaker Operator (truck mounted)
- Prentice High Rail Loader
- Railcar Mover
- Road Oil Mixing Machine Operator
- Roller Operator (asphalt or finish)
- Rubber-Tired Earth Moving Equipment (single engine, up to and including 25 yds. struck)
- Self-Propelled Tar Pipelining Machine Operator
- Rumble Strip Grinder
- Skiploader Operator (crawler and wheel type, over  $\frac{3}{4}$  yd. and up to and including  $1\frac{1}{2}$  yds.)
- Slip Form Pump Operator (power driven hydraulic lifting device for concrete forms)
- Tractor Operator - Bulldozer, Tamper-Scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types)
- Tugger Hoist Operator (1 drum)
- Ultra High-Pressure Waterjet Cutting Tool System Operator
- Vacuum Blasting Machine Operator
- Volumetric Mixer Operator
- Welder - General

#### **Group 7**

- Welder - General (Multi-Shift)

#### **Group 8**

- Asphalt or Concrete Spreading Operator (Tamping or Finishing)
- Asphalt Paving Machine Operator (Barber Greene or similar type)
- Asphalt-Rubber Distributor Operator
- Backhoe Operator (up to and including  $\frac{3}{4}$  yd.) Small Ford, Case or similar.
- Backhoe Operator (over  $\frac{3}{4}$  yd. and up to 5 cu. yd. M.R.C)
- Barrier Rail mover
- Cast in Place Pipe Laying Machine Operator
- Cold Foamed Asphalt Recycler
- Combination Mixer and Compressor Operator (Gunitite Work)
- Compactor Operator - self propelled
- Concrete Mixer Operator - Paving
- Crushing Plant Operator (Non-Portable)
- Drill Doctor
- Drilling Machine Operator, Bucket or Auger Types (Calweld 150 Bucket or similar types - Watson 1500, 2000, 2500 Auger or similar types - Texoma 700, 800 Auger or similar types - drilling depth of 60' maximum)
- Elevating Grader Operator
- Excavator Track/Rubber-Tired- with all attachments (operating Weight 21,000 lbs-1000,000 lbs.

- Global Positioning Systems/GPS
- Grade Checker
- Gradall Operator
- Grouting Machine Operator
- Heavy Duty Repairman
- Heavy Equipment Robotics Operator
- Hydraulic Casing oscillator Operator-drilling depth of 60' maximum
- Hydraulic Operated-drilling depth of 60" maximum
- Hydraulic Operated Grout Plant (excludes hand loading)
- Kalamazoo Ballast Regulator or similar type
- Klemm drill Operator or similar types
- Kolman Belt Loader and similar type
- Le Tourneau Blob Compactor or similar type
- Lo Drill
- Loader Operator (Athey, Euclid, Sierra and similar types)
- Master Environmental Maintenance Mechanic
- Mobark Chipper or similar types
- Ozzie Padder or similar types
- PC 490 Slot Saw
- Pneumatic Concrete Placing Machine Operator (Hackley-Presswell or similar type)
- Portable Crushing Plant Operator
- Prentice 721E Hydro-Ax
- Pumpcrete Gun Operator
- Rock Drill or similar types
- Rotary Drill Operator (excluding Caison type)
- Roto Mill Operator
- Rubber-Tired Earth Moving Equipment Operator (single engine, Caterpillar, Euclid, Athey Wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
- Rubber-Tired Earth Moving Equipment Operator (multiple engine - up to and including 25 yds. struck)
- Rubber-Tired Scraper Operator (self-loading paddle wheel type - John Deere, 1040 and similar single unit)
- Self-Propelled Curb and Gutter Machine Operator
- Shuttle Buggy
- Skiploader Operator (crawler and wheel type over 1½ yds. up to and including 6½ yds.)
- Soil Remediation Plant Operator (C.M.I. Enviro Tech Thermal or Similar Types) (Oiler Required Group II)
- Soil Stabilizer and Reclaimer
- Surface Heaters and Planer Operator
- Somero SXP Laser screed
- Speed Swing Operator
- Tractor Compressor Drill Combination Operator
- Tractor Operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar - Bulldozer, Tamper, Scraper and Push Tractor, single engine)
- Tractor Operator (boom attachments)
- Traveling Pipe Wrapping, Cleaning and Bending Machine Operator

- Trenching Machine Operator (over 6 ft. depth capacity, manufacturer's rating  
Trenching Machine with Road Miner Attachment (over 6 ft. depth capacity, manufacturer's rating)
- Ultra High-Pressure Waterjet Cutting Tool System Mechanic
- Water Pull (compaction)

**Group 9**

- Heavy Duty Repairman (Multi-Shift)

**Group 10**

- Backhoe Operator (over 5 cu.yds. M.R.C)
- Drilling Machine Operator, Bucket or Auger Types (Calweld 200 B
- Bucket or similar types - Watson 3000 or 5000 Auger or similar types - Texoma 900 Auger or similar types - drilling depth of 105' maximum)
- Dual Drum Mixer
- Heavy Duty Repairman-Welder Combination
- Hydraulic Casing Oscillator Operator-drilling depth of 105' maximum
- Monorail Locomotive Operator (diesel, gas or electric)
- Motor Patrol - Blade Operator (single engine)
- Multiple Engine Tractor Operator (Euclid and similar type - except Quad 9 Cat.)
- Pneumatic Pipe Ramming Tool and similar types
- Pre-Stressed Wrapping Machine Operator (2 Operators required)
- Rubber-Tired Earth Moving Equipment Operator (single engine, over 50 yds. struck)
- Rubber-Tired Earth Moving Equipment Operator (multiple engine, Euclid, Caterpillar and similar - over 25 yds. and up to 50 yds. struck)
- Tower Crane Repairman
- Tractor Loader Operator (crawler and wheel-type over 6½ yds.)
- Welder-Certified
- Woods Mixer Operator (and similar Pugmill equipment)

**Group 11**

- Dynamic Compactor LDC350 (or similar types)
- Heavy Duty Repairman-Welder Combination (Multi-Shift)
- Welder-Certified (Multi-Shift)

**Group 12**

- Auto Grader Operator
- Automatic Slip Form Operator
- Backhoe Operator (over 7 cu. Yds, M.R.S)
- Drilling Machine Operator, Bucket or Auger Types (Calweld, Auger 200 CA or similar types - Watson, Auger 6000 or similar types- Hughes Super Duty, Auger 200 or similar types - drilling depth of 175' maximum)
- Excavator Track/Rubber Tired – with all attachments (Operating Weight 100,000 lbs. – 200,000 lbs.)
- Hoe Ram or similar with Compressor
- Hydraulic Casing Oscillator Operator – drilling depth of 175' maximum
- Mass Excavator Operator - Less than 750 cu. yds.
- Mechanical Finishing Machine Operator
- Mobile Form Traveler Operator
- Motor Patrol Operator (multi-engine)

- Pipe Mobile Machine Operator
- Rubber-Tired Earth Moving Equipment Operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)
- Rubber-Tired Self-Loading Scraper Operator (paddle-wheel-Auger type self-loading - two (2) or more units)
- Vermeer Rock Trencher (or similar type)

**Group 13**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (single engine, up to and including 25 yds. struck)

**Group 14**

- Canal Liner Operator (not less than four (4) employees – Operator, Oiler, Welder, Mechanic, Grade Checker required)
- Canal Trimmer Operator
- Drilling machine Operator, Bucket or auger Types (Calweld, Auger 200 CA or similar types – Watson, August 6000 or similar types-Hughes Super Duty, Auger 200 or similar types – drilling depth of 300” maximum)
- Remote Controlled Earth Moving Equipment Operator (no one (1) Operator shall operate more than two (2) pieces of earth moving equipment at one time - One Dollar (\$1.00) per hour additional to base rate)
- Wheel Excavator Operator (over 750 cu. yds. per hour)

**Group 15**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (single engine, Caterpillar, Euclid, Athey Wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (multiple engine - up to and including 25 yds. struck)

**Group 16**

- Excavator track/Rubber-Tired-with all attachments (Operating Weight exceeding 200,000lbs)
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (single engine, over 50 yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

**Group 17**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Push-Pull System (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)
- Tandem Tractor Operator (operating crawler type tractors in tandem - Quad 9 and similar type)

**Group 18**

- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

**Group 19**

- Rotex Concrete Belt Operator (or similar types)

- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, including compaction units - single engine, Caterpillar, Euclid, Athey Wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

**Group 20**

- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

**Group 21**

- Rubber-Tired Earth Moving Equipment Operator, operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

**Group 22**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (single engine, up to and including 25 yds. struck)

**Group 23**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (single engine, Caterpillar, Euclid, Athey Wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (multiple engine, up to and including 25 yds. struck)

**Group 24**

- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (single engine, over 50 yds. struck)
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (multiple engine, Euclid, Caterpillar and similar, over 25 yds. & up to 50 yds. struck)

**Group 25**

- Concrete Pump Operator - truck mounted (Oiler required when boom over 105' or 36 meters)
- Pedestal Concrete Pump Operator
- Rubber-Tired Earth Moving Equipment Operator, operating equipment with the Tandem Push-Pull System (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

**OPERATING ENGINEER-CRANES, PILEDRIVING AND HOISTING EQUIPMENT****Group 1**

- A-Frame or Winch Truck Operator
- Ross Carrier Operator (jobsite)

**Group 2**

- Bridge-Type Unloader and Turntable Operator
- Helicopter Hoist Operator

**Group 3**

- Hydraulic Boom Truck (Pitman)
- Knuckleboom
- Spyder Crane (or similar type)
- Stinger Crane (Austin-Western or similar type)
- Tugger Hoist Operator (1 drum)

**Group 4**

- Bridge Crane Operator
- Creter Crane Operator
- Hoist Operator (Chicago Boom and similar type)
- Lift Mobile Operator
- Lift Slab Machine Operator (Vagtborg and similar types)
- Material Hoist/Manlift Operator
- PD10 Pile driver (or similar types)
- Polar Gantry Crane Operator
- Prentice Self-Loader
- Self-Climbing Scaffold (or similar type)
- Shovel, Dragline, Clamshell Operator (over 3/4 yd. and up to 5 cu. yds. M.R.C.)
- Silent Piler
- Snobble Unit (pin-n-go or similar type)
- Tugger Hoist Operator (2 drum)

**Group 5**

- Pedestal Crane Operator
- Shovel, Dragline, Clamshell Operator (over 5 cu. yds. M.R.C.)
- Tower Crane Repairman
- Tugger Hoist Operator (3 drum)

**Group 6**

- Crawler Transporter Operator (Track or Rubber-Tired, Goldhofer or similar type)
- Derrick Barge Operator (under 25 tons, up to and including 50 tons M.R.C.)
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (up to and including 25 ton M.R.C.)
- Shovel, Dragline, Clamshell Operator (over 7 cu. yds. M.R.C.)

**Group 7**

- Derrick Barge Operator (over 25 tons, up to and including 50-ton M.R.C.)
- Highline Cableway Operator
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 25 tons, up to and including 50-ton M.R.C.)

- K-Crane
- Polar Crane Operator
- Self-Erecting Tower Crane Operator Maximum Lifting Capacity ten (10) tons. One (1) ton operator).

**Group 8**

- Oiler (40 tons up to including 200 tons M.R.C)

**Group 9**

- Oiler (Over 200 tons)

**Group 10**

- ABI/Fundex Machine
- Derrick Barge Operator (over 50 tons, up to and including 100-ton M.R.C)
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 50 tons, up to and including 100-ton M.R.C)
- Vibrocat Stone Column Operator or similar types

**Group 11**

- Crane Heavy Duty Repairman

**Group 12**

- Crane Operator (up to and including 40-ton capacity)

**Group 13**

- Derrick Barge Operator (over 100 tons, up to and including 200-ton M.R.C.)
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 100 tons, up to and including 200-ton M.R.C)

**Group 14**

- Luffing Boom Oiler

**Group 15**

- Derrick Barge Operator (over 200 tons, up to and including 300-ton M.R.C.)
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 200 tons, up to and including 300-ton M.R.C.)

**Group 16**

- Crane Operator (over 40 tons, up to and including 79-ton M.R.C.)

**Group 17**

- Crane Operator (over 80 Tons, up to and including 150-ton M.R.C.)

**Group 18**

- Derrick Barge Operator (over 300 tons)
- Helicopter Pilot
- Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 300 tons)
- Tower Crane Operator (over 300 tons)

**Group 19**

- Crane Operator (over 150 tons, up to and including 200-ton M.R.C.)

**Group 20**

- Crane Operator (over 200 tons, up to and including 250-ton M.R.C.)

**Group 21**

- Crane Operator (over 250 tons, up to and including 300-ton M.R.C.)

**Group 22**

- Crane Operator (over 300 tons, up to and including 350-ton M.R.C.)

**Group 23**

- Crane Operator (over 350 tons, up to and including 500-ton M.R.C.)

**Group 24**

- Crane Operator (over 500 tons M.R.C.)

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**SURVEYOR GROUP CLASSIFICATIONS****Group 1**

- Chainman

**Group 2**

- Rodman

**Group 3**

- Instrument man

**Group 4**

- Global Position Systems Chainman and Rodman
- Hydrographic Engineering Technician I (Chainman)
- Wild Gyroscope Instrumentman

**Group 5**

- Party Chief

**Group 6**

- E.D.M. or Fathometer Instrument man

**Group 7**

- Certified Party Chief

**Group 8**

- Hydrographic Engineer Party Chief

**Group 9**

- Certified Hydrographic Engineer Party Chief
- Global Position Systems Party Chief

**Group 10**

- Chief of Parties
  - Two (2) or more crews
- 

### **OPERATING ENGINEER-Tunnel**

#### **Group 1**

- Heavy Duty Repairman Helper

#### **Group 2**

- Skiploader (wheel type up to  $\frac{3}{4}$  yd. without attachment)

#### **Group 3**

- Chainman
- Power - Driver Jumbo Form Setter Operator

#### **Group 4**

- Dinkey Locomotive or Motorman (up to and including 10 tons)
- Rodman

#### **Group 5**

- Bit Sharpener
- Equipment Greaser (Grease Truck)
- Instrumentman
- Slip Form Pump Operator (power driven hydraulic lifting device for concrete forms)
- Tugger Hoist Operator (1 drum)
- Tunnel Locomotive Operator (over 10 and up to and including 30 tons)
- Welder - General

#### **Group 6**

- Backhoe Operator (up to and including  $\frac{3}{4}$  yd.) Small Ford, Case or similar
- Drill Doctor
- Grouting Machine Operator
- Heading Shield Operator
- Heavy Duty Repairman
- Jumbo Pipe Carrier
- Loader Operator (Athey, Euclid, Sierra and similar types)
- Mucking Machine Operator (1/4 yd.)
- Pneumatic Concrete Placing Machine Operator (Hackley-Presswell or similar type)
- Pneumatic Heading Shield (tunnel)
- Pumpcrete Gun Operator
- Tractor Compressor Drill Combination Operator
- Tugger Hoist Operator (2 drum)
- Tunnel Locomotive Operator (over 30 tons)

#### **Group 7**

- Heavy Duty Repairman-Welder Combination

#### **Group 8**

- Party Chief

**Group 9**

- Certified Chief of Party
  - Tunnel Mole Boring Machine Operator
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**OPERATING ENGINEER**  
**Field Soils and Material Tester Building/Construction Inspector**

**Group 1**

- Field Soils and Material Tester
- Field Asphaltic Concrete (Soils and material Tester)
- Field Earthwork (Grading and Excavation and Filing)
- Profilograph
- Roof Inspector
- Water Proofer

**Group 2**

- AWS-CWI Welding Inspector
- Building/Construction Inspector
- Licensed Grading Inspector
- Reinforcing Steel
- Reinforced Concrete
- Pre-Tension Concrete
- Post-Tension Concrete
- Structural Steel and Welding Inspector
- Glue-Lam and Truss Joints
- Truss-Type Joint Construction
- Shear Wall and Floor System used as diaphragms
- Concrete Batch Plant
- Spray-Applied Fireproofing
- Structural Masonry

**Group 3**

- Nondestructive Testing (NDT)

**TRUCK DRIVER, includes but is not limited to:****Group 1**

- Drivers of dump trucks (less than 12 yds. water level), drivers of trucks (legal payload capacity less than 15 tons), water and fuel truck drivers under 2,500 gal, pickup driver, service station attendant, teamster equipment (highest rate paid for dual craft operation), warehousemen, drivers of busses on site used for transportation of up to sixteen (16) passengers.

**Group 2**

- Drivers of dump trucks (12 yds but less than 16 yds water level), drivers of trucks (legal payload capacity between 15 and 20 tons), drivers of transit mix trucks (under 3 yds), dumpcrete trucks (less than 6 ½ yds water level), gas and oil pipeline working truck drivers, including winch truck and all sizes of trucks, water and fuel truck drivers (2,500 gal to 4,000 gal), truck greaser, drivers of busses (on jobsite used for transportation or more than sixteen (16) passengers), warehouse clerk.

**Group 3**

- Drivers of dump trucks (16 yds up to and including 22 yds water level), drivers of trucks (legal payload cap. 20 tons but less than 25 tons), drivers of dumpster trucks, drivers of transit-mix trucks (3 yds but less than 6 yds), dumpcrete trucks (6 ½ yds water level and over), fork lift driver, Ross Carrier driver, highway water and fuel drivers (4,001 gallon but less than 6,000 gallon), stock room clerk, tireman.

**Group 4**

- Drivers of transit-mix trucks (6 yds or more), drivers of dump trucks (over 22 yds. water level), drivers of trucks (legal payload capacity 25 tons and over) drivers of fuel and water trucks (6,000 gallon and over).

**Group 5**

- Drivers of trucks and trailers in combination (six axles or more).

**Group 6**

- All Off-road Equipment, Truck Repairman, Transport Drivers and Drivers of Road Oil Spreader Trucks, DW 10 and DW 20 Euclid-type equipment Letourneau pulls, Terra Cobras and similar types of equipment, also PB and similar type trucks when performing work within the Teamster jurisdiction, regardless of types of attachment, including power units pulling off-highway belly dumps in tandem.
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