



General Project Requirements and General Notes

I. PREFACE

- A. All maps, technical studies, reports, designs, construction drawings, specifications and special technical requirements associated with the project and improvements presented herein has been accomplished under the supervision of responsible Professional(s) having the appropriate registration to serve in this capacity based on the scope of this specific project, and in accordance with the statutory provisions of the Nevada Revised Statutes (NRS) and the Nevada Administrative Code (NAC) including:

NRS 278, 338, NRS 623, NRS 625; NAC 338, NAC 623 and NAC 625

Certification signifying compliance with statutory and related administrative code requirements is hereby provided by the responsible Professional(s) in the form of a stamp or seal placed on the project documents.

- B. The project and all improvements related thereto as illustrated on the project drawings must conform to North Las Vegas Municipal Code including the Titles and Chapters noted below:

Title 2, Chapter 2.36	Administrative Fees
Title 8, Chapters 8.16, 8.50	Fire Code and Stormwater Regulations
Title 10, Chapter 10.16	Traffic Control Devices
Title 10, Chapter 10.52	Temporary Traffic Control Regulations
Title 12, Chapter 12.08	Public Works Project Permit and Performance Regulations
Title 13	Public Services
Title 15	Uniform Regulations for the Control of Drainage
Title 16	Subdivisions

It is expected that these Titles and Chapters, as a minimum, will be applied on a project specific basis and not construed to be all inclusive or exclusive. The project is also expected to conform with revisions in the North Las Vegas Municipal Code as it may be revised from time to time.

- C. Project review by representatives of the City of North Las Vegas is intended to complement and assist the responsible Professional(s) in advancing a project that is in compliance with City of North Las Vegas requirements, and is consistent with public benefit, health, safety, and welfare. Review is not an assurance of project feasibility, professional and technical accuracy, or conformance with special conditions imposed by public agencies, including the North Las Vegas Planning Commission.
- D. Approval of these improvement plans and specifications is made based on the representations made by the Professional(s) that they have discharged their responsibilities and prepared complete documents which comply with City of North Las Vegas requirements for construction of the improvements depicted herein.
- E. If construction has not commenced within, or in the event of an interruption in construction for a period of, one (1) year after the most recent approval date noted hereon, these improvement plans must be resubmitted for evaluation by the City of North Las Vegas for possible design update.

II. STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR GENERAL CONSTRUCTION

- A. All improvements shown on these construction drawings shall be implemented in accordance with the "Uniform Standard Specifications for Public Works Construction Off-site Improvements, Clark County Area, Nevada," latest edition. Approved revisions to these Standards are posted on the Regional Transportation Commission of Southern Nevada website.
- B. Exceptions to these Standards are noted below:
1. All provisions directly related to those procedures used to solicit competitive bids and to award and execute contracts for public agency projects.
 2. The City of North Las Vegas Trench Backfill Policy dated August 15, 1996, shall be implemented for this project. Copies of the Trench Backfill Policy can be obtained from the Department of Public Works, Construction Services Division, 2250 Las Vegas Blvd., N., Suite 610 North Las Vegas, Nevada 89030, 633-1206.
 3. The City of North Las Vegas Policy Regarding Grading and Construction On Or In Close Proximity To Geologic Faults and Ground Fissures. Copies of the policy can be obtained from the Department of Public Works, Construction Services Division, 2250 Las Vegas Blvd., N., Suite 610 North Las Vegas, Nevada 89030, 633-1206.

4. Where allowed, curb and gutter having a design grade of 0.5 percent or less shall be constructed by forming. Form grades and elevations shall be verified prior to placement of concrete and water flow tested as soon after placement as curing allows.
 5. "No parking" zones at curb returns, fire hydrant zones and school zones shall be painted red to the limits noted on the plans, or if not shown on the plans, to the limits established by the City of North Las Vegas Traffic Engineer.
- C. Modifications and clarifications to these standards are noted below:
1. The contractor shall make a project site visit with plans-in-hand prior to construction to confirm project constructability, and shall immediately notify the Professional of any constructability problems.
 2. Information noted on the plans concerning the existence and location of existing wet underground utilities and other underground structures were obtained by a search of available records. The City of North Las Vegas, Professional, and Owner make no assurances concerning the accuracy of such information. The Contractor shall exercise caution and use best available construction techniques to determine the actual location of and protection for all underground utilities whether or not they are shown on the plans. At a minimum, the contractor shall:
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Call Before You Overhead 1-702-227-2929
 3. The contractor is responsible for securing all project permits and complying with all terms and conditions imposed by the permitting agencies. Agencies other than the North Las Vegas Public Works Department that may have jurisdiction or regulatory authority concerning the project include:
City of North Las Vegas Building Department
Clark County Health District - Division of Air Quality Management
Nevada Department of Transportation
Nevada Department of Environmental Protection
US Army Corps of Engineers
Nevada Division of Water Resources
 4. The contractor shall provide at least seventy-two (72) hours notice to each of the following agencies confirming the scheduled start of construction:
City of North Las Vegas Construction Services (702)390-4407
Cox Communication (702)385-3644
NV Energy (800)227-2600
Century Link (702)244-8004
Southwest Gas Corporation (702)651-2111
 5. The developer/contractor is responsible for the installation of missing survey monuments and replacement of all existing survey monuments destroyed, damaged or disturbed during construction whether or not shown on the record improvement plans. Said work shall be done only by a Nevada Professional Land Surveyor in accordance with the Uniform Standard Drawings - Clark County Area. Prior to release of the project's surety/bond, the developer/contractor will be required to prepare a post construction Record of Survey in accordance with Nevada Revised Statutes 625.350 of all survey monuments set. A preliminary copy of the post construction Record of Survey shall be supplied to the City of North Las Vegas Survey Department for approval prior to recordation. All activities associated with the installation and replacement of monuments and preparation and recording of mapping will be at no cost to the City of North Las Vegas. If, prior to construction, the required survey monuments have been confirmed as existing and documented on the record improvement plans, and confirmation is provided that the survey monuments have not been disturbed, damaged or destroyed post construction, the requirement for the post construction Record of Survey will be waived by the City Surveyor.
 6. The contractor shall exercise caution and use construction techniques to protect and preserve existing public and private features located in close proximity to or abutting improvements shown on these plans. Restoration of damaged features shall be accomplished by the contractor at the contractor's expense to the satisfaction of the City of North Las Vegas' representative.
 7. The location of all sawcut lines for the project may be determined by the City of North Las Vegas if the location is not clearly shown on the plans or if existing conditions require adjustment to the location shown on the plans.
 8. The contractor shall cooperate and coordinate with the City of North Las Vegas' representative

9. in providing ingress and egress to abutting properties, and shall protect such properties from project related storm water and nuisance runoff by providing temporary positive drainage control. Plantmix bituminous shall be finished to a height of between 3/8 inches and 5/8 inches above the lip of curb gutters and valley gutters.
10. Fog seal shall be applied to plantmix bituminous surfaces after all corrections and adjustments have been made.
11. Type V cement shall be used for all off-site improvements and the mix shall be designed for soluble sulfates in the subgrade of 1.5 percent or greater based on subgrade material sampling and testing. All mix designs shall be project specific and approved by the City of North Las Vegas representative prior to placements.
12. All manholes, valve boxes, junction structures, vaults and cleanouts that are located within the roadway limits shall be constructed to, and plated at subgrade level until such time as the aggregate base and plantmix bituminous surface has been completed. Thereafter, these items shall be adjusted to finish grade.
13. Utility boxes and vaults located in the sidewalk area are to be constructed to the finish design grade. The elevation shall be consistent with that required for the standard concrete City of North Las Vegas sidewalk even if the concrete sidewalk construction is deferred to a future date.
14. The contractor shall provide reasonable accommodations for City of North Las Vegas personnel to obtain GPS/GIS data on all underground utilities and infrastructure.
15. All off-site improvement subgrade must be certified by the Geotechnical Engineer of Record.

III. STANDARD SPECIFICATION AND STANDARD DRAWINGS FOR WATER LINE CONSTRUCTION

- A. All water improvements shown on these construction drawings shall conform to the standards described below, and in order of precedence shown.
 1. "City of North Las Vegas Municipal Water Service District Service Rules and Regulations," latest edition.
 2. "Uniform Design and Construction Standards for Water Distribution Systems, Clark County Nevada," latest edition and City of North Las Vegas Addendum .
 3. "Uniform Standard Specification for Public Works Construction Off-site Improvements, Clark County Area, Nevada," latest edition.
- B. Exceptions to these Standards are noted below:
 1. No water main may be shut down to make connections without prior approval of the City of North Las Vegas representative.
 2. Materials used for water distribution facilities shall be included on the "City of North Las Vegas Approved Materials List," latest revision, or specifically identified and approved on these plans.
 3. All water meters two (2) inches and smaller shall be installed by the City of North Las Vegas. Note that all locations must be clearly identified and marked at the site. The service lines, laterals, meter boxes and sidewalks or collars must all be installed and set at grade or the meter will not be set.
 4. The City of North Las Vegas' trench Backfill Policy, dated August 15, 1996, shall be adhered to for this project.
- C. Modification and clarification to these Standards are as noted below:
 1. Water Metering Requirements for New Development:
 - a. Separate domestic and fire services (where applicable) are required for each dwelling unit, public, quasi-public, commercial, and/or industrial occupancy located on a single parcel or lot.
 - b. In the event that a building within an industrial or commercial subdivision is divided, separate domestic services are required for each unit.
 - c. Each parcel or lot of a commercial or residential subdivision will have a minimum of one (1) metered domestic service. When a fire service is required, each parcel or lot will have a minimum of one (1) fire service. The City, at its option, may allow a communal fire service provided the property owners first establish a property management association which accepts responsibility for the payment of water bills and the maintenance and operation of the fire lines and the backflow prevention assembly.
 2. Fire and domestic water services as approved on this plan, are intended specifically for the lot and use shown, and are not intended to serve additional parcels or structures which may be

- created in the future. In the event that the parcels and/or lots shown on this plan are further divided to create additional parcels or lots, the owner is required to provide separate fire and domestic water services to each.
3. Connection to public fire hydrants shall not be made for domestic and/or private fire service.
 4. All service laterals two (2) inches and smaller shall be copper tubing with approved service saddles. Corporation stops and angle meter stops shall be the same size as the service lateral. Angle meter stops and meter shall be centered in meter the box.
 5. UDACS Plates No. 1 and No. 3: Revise note to read "couplings are not allowed between the corporation stop and the angle meter".
 6. All meters to be installed in the City of North Las Vegas water system, including DCDAs must be compatible with the SENSUS AMR protocol (a.k.a. Invensys) and must be installed with the encoded register. Meters that are fully compatible are: Senso/Invensys ECR/WP models (5/8" and larger) Neptune Autoread models (3" and larger) & Metron/T2 INNOV8 (All sizes).
 7. Any parcel receiving water from the public distribution system from multiple connections is required to utilize the same meter manufacturer. For master metered multi-family residential, the meters shall be of the same manufacturer, model, and size.
 8. All meter boxes shall be equipped with traffic bearing covers and installed to finish design grade and elevation. If such is not shown on the plans, the elevation will be established by the City of North Las Vegas representative.
 9. Any block wall or other fence shall be designed and constructed around the outside of the easement(s), to allow the City direct access to vault(s) and inlet piping from the adjacent right-of-way.
 10. No utility boxes shall be located in driveway approaches, unless approved by the Utilities Division.
 11. A single pipe material shall be used throughout the project unless otherwise approved by the City of North Las Vegas representative.
 12. The on-site water lines and appurtenances are private facilities not to be operated or maintained by the City of North Las Vegas, unless otherwise specified on Civil Improvements Plans.
 13. All valves will be located outside of driveways, valley gutters, and curb gutters.
 14. A minimum of two (2) valves shall be located at every mainline tee, or three (3) valves at every mainline cross.
 15. All new fire hydrants shall have a 5-1/4 inch valve opening.
 16. Two sources of water supply are required for any development with any combination of more than three (3) fire hydrants (public or private) or fire services.
 17. Minimum separations between fire systems and domestic water mains shall be six (6)-feet horizontally from exterior pipe walls and eighteen (18)-inches vertically. Minimum separation from sewer lines shall be ten (10)-feet horizontally.
 18. Pipe detector ribbon and locator balls shall be required above all water mains, service laterals that are six (6) inches and larger, and any service lateral not installed perpendicular to the main line.
 19. All water mains shall be filled, pressure tested to 200 PSI, disinfected, flushed, refilled and an acceptable water sample obtained, prior to connection by the City. Contact the City of North Las Vegas Utility Division twenty-four (24) hours in advance to schedule sampling.
 20. All backflow prevention assemblies shall be tested and certified by the City of North Las Vegas prior to placing the water system in service. No water shall be taken from a service requiring backflow prevention until the reduced pressure principle assembly has been successfully tested by the CNLV. Contact the City of North Las Vegas twenty-four (24) hours in advance to schedule testing.
 21. Limits of asphalt patches to be determined in the field by a City of North Las Vegas inspector. Patches will be a minimum of twelve (12)-feet machine replaced.
 22. To schedule Utility Inspections, please email util-insp@cityofnorthlasvegas.com. Utility inspection requests must be received by 2:00 p.m. for inspections to occur the following normal working day (Monday through Friday). For after hours utility inspections, including weekends, call the inspection line at 702-390-4407.
 23. Record drawings shall be prepared, signed and submitted to the City of North Las Vegas representative prior to final acceptance of any water distribution facilities to be owned,

operated or maintained by the City of North Las Vegas.

- D. Shutdown requirements and information:
1. Contact the utilities Department seven (7) working days prior to any anticipated shutdown for coordination purposes. The contractor shall not open/close any valves within the City's water distribution system. The utilities department contact number is 633-1285.
 2. For commercial properties, provide written notification and verbal coordination between the Utilities Department and the commercial property owner(s) a minimum of seven (7) working days prior to anticipated shutdown. The commercial owner(s) shall have the ability to provide input in scheduling shutdowns.
 3. For residential properties, provide written notification to residential properties a minimum of 48 hours prior to anticipated shutdown.
 4. Working days are deemed to be Monday through Thursday for shutdown purposes.
 5. Shutdowns are anticipated to be night work. Final decisions shall be at the discretion of the Utilities Department.
 6. The shutdown relocation, and/or adjustment of water lines shall be as approved by the City of North Las Vegas Utilities Department. Shutdowns cannot be guaranteed by the Department. Line stops or "Insert-a-Valves" may be required to complete the work, at the discretion of the Utilities Department. Contractor shall be responsible for all costs associated with the work.

IV STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR SEWER LINE CONSTRUCTION

- A. All sewer lines (wastewater collection systems) shown on these construction drawings shall conform to the standards described below, and in accordance with the precedent shown:
1. "Design and Construction Standards for Wastewater Collection Systems, Southern Nevada," latest edition and City of North Las Vegas Addendum.
 2. "Uniform Standard Specifications for Public Works construction Off-Site Improvements, Clark County Area, Nevada," latest edition.
- B. Exceptions to these Standards are noted below:
1. Materials used for wastewater collection systems shall be included in the City of North Las Vegas approved Materials List, latest edition, or specifically identified and approved on these plans.
 2. The City of North Las Vegas Trench Backfill Policy, dated August 15, 1996 shall be adhered to for this project.
 3. The contractor shall inscribe "S", 3-inches in height, into the curb at the point where the sewer lateral enters each subdivision lot or private land parcel.
- C. Modifications and clarification to these Standards are noted below:
1. All sanitary sewer manhole bases for new pipe must be precast per Design and Construction Standards for Wastewater Collection Systems plates SD-1A, 1B and 9.
 2. Limits of asphalt patches to be determined in the field by a City of North Las Vegas inspector. Patches will be a minimum of twelve (12)-feet, machine replaced.
 3. The on-site sewer lines and appurtenances are private facilities not to be operated or maintained by the City of North Las Vegas, unless otherwise specified on Civil Improvement Plans.
 4. Sewer services as approved on this plan, are intended specifically for the lot and use shown, and are not intended to serve additional parcels or structures which may be created in the future. In the event that the parcels and/or lots shown on this plan are further divided to create additional parcels or lots, the owner is required to provide separate sewer services to each.
 5. To schedule Utility Inspections, please email util-insp@cityofnorthlasvegas.com. Utility inspection requests must be received by 2:00 p.m. for inspections to occur the following normal working day (Monday through Friday). For after hours utility inspections, including weekends, call the inspection line at 702-390-4407.
 6. Record drawings shall be prepared, signed and submitted to the City of North Las Vegas prior to acceptance of any wastewater collection systems to be owned, operated, or maintained by the City of North Las Vegas.
 7. Pipe detector ribbon and locator balls shall also be required above all sewer mains.
- D. Adjusting Manholes
1. When adjusting manholes, the contractor shall install plywood covers in sanitary sewer

- manhole inverts as well as steel plate covers over manholes (after manhole rings/frames are removed) to prevent debris from entering sewer manholes and corresponding lines. Debris in the manholes shall be removed prior to plywood removal.
2. Plywood and steel covers for manholes shall be installed and removed in the presence of the Utilities Inspector. All debris dropped into the sewer manholes and corresponding lines shall be retrieved at the Contractor's expense. The Contractor shall clean (e.g., jet vac or equivalent) the debris out of the affected manholes and/or sewer lines in the presence of the Utilities Inspector.

V. OTHER GENERAL NOTES

A. General Grading and Drainage Notes

1. Pursuant to City of North Las Vegas Ordinance Number 1172, the contractor is required to secure a grading permit prior to commencing work.
2. The contractor shall secure a permit for any off-site construction.
3. The contractor's operations shall not trespass beyond the project property lines unless a permit or written authorization has been obtained from the property owner(s) involved. Copies of such written authorization shall be furnished to the City of North Las Vegas' representative prior to start of construction.
4. The City of North Las Vegas Construction Services shall be notified one (1) working day before any on-site construction work begins.
5. An approved grading and drainage plan shall be on the job site at all times. Deviations from the approved plan will require submittal of a formal revised plan for review and approval.
6. All construction survey control shall be done by a licensed Professional Land Surveyor in accordance with applicable statutes and codes. The contractor shall provide competent resources to assure building pad and building floor elevations conform to those shown on the construction drawings. Furthermore, the contractor shall provide the City of North Las Vegas Building Department with:
 - a. Certification of "Building Floor Elevations" in critical drainage areas.
 - b. Certificates of "Building Pad Elevations" in noncritical areas.
7. The contractor shall certify to the City of North Las Vegas Construction Services Division that all fills, foundations and subgrades meet the minimum compaction requirements. Certification shall be made prior to pouring concrete.

B. General Traffic Notes

1. Contractor shall reference the latest RTC Uniform Standard Specifications & Drawings for Construction. Locations of Underground utilities shown on the drawings were obtained by a search of available records. Neither the Owner nor the Engineer assumes any responsibility for utilities or structures not show or not in the location shown on the drawings. The contractor's responsibility regarding utilities shall be as requires under section 105.06 of the Uniform standard Specifications for Public Works' Construction Off -Site Improvements. Clark County Area, Nevada, Latest Edition. The Contractor shall notify all Utility Companies at least 2 working days prior to commencing construction

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North Las Vegas Public Works 1-702- 633-1200

North Las Vegas Traffic Engineer 1-702- 633-1224

NV Energy 1-702- 402-5555

2. All barricading, construction signing, traffic delineation and markings shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) and work zone traffic control handbook. All barricades shall have retroreflective sheeting compliant with Uniform Standard Specification 716. It shall be the contractor's responsibility to see that all traffic control devices are properly installed and maintained throughout the duration of the project. Contact the City of North Las Vegas' City Traffic Engineer for specific traffic control requirements.
3. Temporary traffic control plans shall not be implemented until a permit has been granted by the

- City of North Las Vegas' Public Works Department. Temporary traffic control plans are required to be submitted to the City of North Las Vegas' Public Works Department for review. Permits for temporary traffic control will only be granted after the contractor has made payment of associated fees.
4. All development plans shall have a master street lighting and traffic control (signing and striping) plan sheet contained in the plan set which includes all units and/or phases of the project.
 5. All work performed on any component of any electrical street lighting shall be supervised by an electrician that is certified as a Journeyman Electrician. All work performed on any component of a traffic signal shall be supervised by an IMSA Level 2 Traffic Signal Electrician that is also a certified Journeyman Electrician. The electrical contractor shall hold a valid state of Nevada recognized C-2 Electrical Contractor's license. Contractor must also hold an IMSA Roadway Lighting Certification.
 6. The contractor shall obtain approval of all materials from the Traffic Operations Supervisor prior to use during the submittal process. Any installed non-approved material shall be removed and replaced with the appropriate material at no expense to the City of North Las Vegas.
 7. The contractor shall be responsible for locating and protecting all underground and aerial utilities and construction likely to be affected by the work. The location of underground utilities, as shown on the plans, is approximate only. Any damage to existing utilities shall be the responsibility of the contractor and shall be repaired promptly in a manner satisfactory to the utility owner at the contractor's expense.
 8. The Contractor shall be responsible for maintaining all detection loops during the entire course of construction. In the event the loops or any associated items are damaged during construction, or any means related to it, the Contractor shall replace the loops and associated items per the City of North Las Vegas' latest standard and with the approval of the Traffic Operations Supervisor. It is the Contractor's responsibility to verify the presence of loops prior to construction. The replacement of damaged loops and any associated items shall be at the Contractor's expense.
 9. Contractor is required to notify the Traffic Signal Operations Supervisor through the RTC website, Notification of Roadwork Near Traffic Signals page (<https://www.rtcsnv.com/traffic-cams/roadwork-notifications/>) when the work zone is within 300 feet of a signalized intersection. Notification shall be made no fewer than three (3) working days prior to the start of work. CNLV working days are Monday through Thursday. The contractor shall provide notification through the same website at the completion of work within 24 hours of the lanes being opened to the public.

Pavement Markings, Signage and Traffic Control Devices

10. If the project improvements necessitate temporary removal and/or relocation of traffic control signs, markings or any other traffic control devices, they shall be maintained throughout the entire duration of the project and shall be restored to the satisfaction of City of North Las Vegas' City Traffic Engineer.
11. Installation of permanent pavement markings shall be required for all rights-of-way which include half street improvements unless otherwise noted. Proposed pavement markings shall tie into any existing, bordering markings.
12. Painted markings shall not be used for temporary conditions. All temporary markings shall be a removable grade tape.
13. All permanent markings shall be per Clark County Uniform Standard Drawing 244 thru 248 and meet the satisfaction of the City Traffic Engineer.
14. All cross-walk hashes and stop bars that are installed with marking tape shall be installed without splices in the tape. One continuous run of tape is required.
15. All signage must be installed with a 3M, DG3 sheeting, and 1160 anti-graffiti film.
16. Street name signs mounted on uni-strut posts must use rivets for attachment. Specialty brackets are not permitted.
17. All sign posts shall be 2"-12-gauge steel with a 2-1/4" 30" deep anchor.

18. All signage shall be .080 aluminum.
19. Sign post anchors installed in sidewalk shall use tape or other approved means to keep the anchor from being filled with concrete or grout.
20. All signage (excluding All Way stop plaques & Street Name Signs) shall be installed per the RTC-Uniform Standard Drawings No. 249.1 (Note 6)
21. All permanent traffic control devices required by the City Traffic Engineer shall be properly installed in accordance with the latest edition of the MUTCD and/or the RTC standards prior to allowing any public traffic onto the streets.

22. All temporary regulatory signage shall be ground mounted in accordance with Clark County Uniform Standard Drawing 249 and meet the most recent MUTCD requirements.
23. Private street name signs shall have a white background with blue lettering. Public street name signs shall have a blue background with white lettering.
24. "No Parking" zones at curb returns, fire hydrant zones and school zones shall be painted red to the limits noted on the plans.
25. Fluorescent yellow-green signage shall be used where allowable by the MUTCD.
26. Flexible bollards (4" Tuff Post-Delineator Style, yellow; or approved equal) shall be placed at median nose sections. K-71 type markers shall not be allowed.
27. No trees or landscaping that obscures the view of a stop sign shall be installed within 60 feet of an intersection.
28. Extruded aluminum brackets shall be used for street name sign installation on street light poles. Cast aluminum brackets shall not be permitted.
29. Rectangular Rapid Flashing Beacons shall be Carmanah #SC315-G or approved equal. The system shall be powered either by 120 volts or 12 volts as per plan. The 12 volt system shall include a 12-volt, 35-amp hour, AGM battery enclosed in a raw aluminum type 3R cabinet and a 50-watt solar panel. All installations shall include ADA compliant pushbuttons with LED and two tone audible confirmation. Push buttons, LED housings and LEDs shall be yellow in color.
30. School Flashers shall be controlled by RTC Manufacturing #AP-22 time clock and #M2M cellular modem with a 5 year data plan. The system shall be powered either by 120 volts or 12 volts as per plan. 12 volt systems shall include a 12-volt, 36-amp hour, gel-cell battery and a Guardian Series monitor enclosed in a raw aluminum type 3R cabinet with a 50-watt solar panel.
31. Flashing LED enhanced stop signs shall be TAPCO "Blinkerstop" (R1-1) or approved equal. Each sign shall have an anti-graffiti overlay (3M 1160) and contain 8 continuously flashing integrated red LEDs powered by a 12 volt solar panel and battery system.

Fiber Optic Conduit and Pull Boxes

32. Fiber optic conduit, schedule 40 PVC, is required on all rights-of-way 80 feet and greater; size shall be 4 inches, unless otherwise specified.
33. Pull boxes and covers shall be made of reinforced polymer concrete materials. Pull box covers shall be stamped with CNLV FIBER. Pull boxes shall be Type P 30 with straight bottom entry and exits.
34. Spacing of pull boxes shall be 450 feet, with a maximum of 500 feet allowable if construction limits are less than 450 feet and one pull box is being installed.
35. All fiber conduits at the limits of construction shall be stubbed and capped 5 feet past the property line or connected to existing fiber conduit.
36. All conduits shall be cleaned, blown out, mandrel(ed) and shall have a #8 AWG THW green trace wire installed. Wire shall be secured at both ends and capped.
37. Conduit and pull boxes at all intersections with 80 feet/80 feet rights-of-way and greater shall be constructed in accordance with Clark County Uniform Standard Drawing 889 & 765. The future signal pole foundation(s) shall be Type L and located center of radius as in accordance with Clark County Uniform Standard Drawing 885, unless otherwise noted.

C. General Streetlight Notes

1. Streetlights shall be light emitting diode (LED) per Uniform Standard Drawings for Clark County Area, Supplemental Drawing, Streetlight Location L.E.D., Standards and General Notes, Dwg.

- No. 300.S3, and per City of North Las Vegas Approved Products List with 7 pin receptacle and shorting cap for roadway fixtures and photocell for intersection fixtures.
2. LED characteristics shall conform to the provisions of the Clark County Uniform Standards Specifications 623 L.02.03. Wattage shall be as shown on the plans. LED's (100 watt HPS, 150 watt HPS, & 250 watt HPS comparables) shall be the latest GE Evolve with 7 pin receptacle and shorting cap (or approved equal by the Traffic Operations Supervisor) for ALL roadways public and private.
 3. Traffic signal luminaire lighting shall be LED (400 watt HPS comparable) and shall be the latest Holophane fixture (or approved equal by the Traffic Operations Supervisor) with 7-pin receptacle and twist lock photocell.
 4. Terminating conduit shall end in a pull box with pull string. All conduits at limits of construction shall be stubbed and capped with a pull box five (5) feet past property line or connected to existing street lighting conduit. For ALL empty conduits, a detectable mule tape with tracer shall be installed.
 5. All street lighting conduits shall be 2 inch PVC schedule 40 and shall have a minimum of 24 inches of cover in all areas.
 6. All conduits for future use shall be blown out with compressed air, cleaned and provided with a 200 pound pull line and a detectable mule tape w/ tracer; all ends of conduits shall be capped.
 7. All pull boxes and covers shall be made of reinforced polymer concrete materials.
 8. All pull boxes shall be # 3½, unless otherwise noted.
 9. Pull box covers shall be stamped to show the phrase "Street Light".
 10. Pull box covers shall be nonconductive and anti-theft locking. Anti-theft lock mechanism shall be approved by the City of North Las Vegas' Traffic Operations Supervisor before installation.
 11. All pull boxes must have a concrete collar.
 12. All service panels shall be per Clark County Uniform Standard Drawing No. 730. The photo cell shall be a type II, Tork 2007 or approved equal and be mounted inside the service pedestal. A switch shall be included for manual operation (USS 623L.02.06). The receptacle shall be a 7 pin.
 13. The Traffic Operations Supervisor (702-239-2123) shall be notified two business days (48 hours) in advance to schedule an inspection of the wiring makeup /service point. Business days are Monday-Thursday.
 14. A completed set of mylar as-built drawings must be submitted to and approved by the Traffic Operations Supervisor before final acceptance of any related work.
 15. Street lights shall be placed in accordance with Uniform Standard Drawing number 320 thru 320.1, unless otherwise noted.
 16. Street light standards and mast arms shall be galvanized in accordance with ASTM A-120.
 17. Internal residential streets and external streets shall have separate service points (RCOC / Pedestals); Contractor shall install Millbank service pedestals (or approved equal). All services shall be limited to 80 percent capacity. Contractor is required to install service pedestals per the meter tag inspection checklist.
 18. An empty 2 inch schedule 40 PVC shall be placed between internal and external street lighting circuits.
 19. Pedestals shall be installed so that a technician faces oncoming traffic when the pedestal is being serviced.
 20. Pedestals shall be installed with a concrete pad per RTC standards.
 21. Pedestals shall have a minimum of 2 (two) - 2 inch conduits entering the front of the pedestal.
 22. Streetlight service point locations shall be provided on the off-site improvement plans and as-built plans.
 23. Address call outs for all streetlight service locations shall be on address placards with raised letters per RTC standards.
 24. No street lighting circuits shall cross any arterial or collector streets (excluding feeders and home runs).
 25. All newly installed streetlights shall have locking handhole covers: Ted Tooling (Thomas Lock Bolt) Patent # US 10,100,557B1 (www.TEDTOOLING.com) or approved equal. The keys shall be handed over to the City of North Las Vegas Traffic Operations Supervisor once installed and the project is signed-off and released.

26. All street light poles and fixtures must be leveled prior to burn test and meter tag inspection.
27. All street light circuits must have burn test performed with the City of North Las Vegas' Traffic Operations Supervisor prior to acceptance.
28. All pedestals shall not have any landscaping or obstructions near the pedestal which would impede maintenance access. The installation must comply with NEC Table 110.23(A)(1) Working Spaces.

Park, Trail, and City Facilities Lighting

29. All poles are to be made of STEEL including hand hole and base covers (NO POT-METAL).
30. All poles to be 6 inch minimum in diameter.
31. All pole hand holes shall be 4 inch by 6 inch squared and shall have theft proof locking hand hole covers as approved by the Traffic Operations Supervisor.
32. All construction shall conform to Uniform Standard Drawings for Public Works Construction, City of North Las Vegas, and Uniform Standard Specifications for Public Works Construction, Clark County, Nevada, unless otherwise noted.
33. Raised bases MUST be installed on all lighting bases 30" above grade. All pole bases to be installed to current foundation specs (Southern Nevada Building Regional Standards)E-101, 06-24-08
34. All lighting controls to be "Twist Lock" Photo Cell mounted in service or Astronomically Controlled
35. ALL wiring inside a CNLV Park and on any of the LV Wash Trails shall be aluminum (per AA-8000 series, ASTM B-801). Sizing of wire will be approved by the Traffic Ops Department during the submittal process. All poles shall be labeled with a small anti-theft sticker near hand-hole (sticker contents to be approved by Traffic Operations Supervisor)
36. No alternating circuits are to run be thru light poles or pull boxes
37. All Trail lights, Play area Lights, and Parking Lot Lighting to be 240 volts or less (No 277 or 480 volt circuits allowed)
38. All electrical services shall be protected by a barrier (ie; a brick wall and/or concrete and/or 15' of desert landscaping) and set above grade to minimize water exposure to electrical components (ie; switch gear, light poles, etc.) Switch gear or free standing service panels need to be set a minimum 12 feet away from landscaping w/ irrigation to avoid rust.
39. All lighting shall be accessible by a bucket truck or a lift for maintenance purposes. A clear path to the fixture, or electrical asset with future growth of landscaping considered shall be provided at all locations.
40. All play area lighting shall be mounted as high as possible to prevent vandalism and shall be vandal resistant.
41. All lighting shall be fused in the handhole.
42. Split bolts used for aluminum wire make-up must be high strength bronze.

D. General Fire Department Notes

1. All work shall be done in strict accordance with North Las Vegas' standard specifications and drawings.
2. The contractor is responsible for compliance with the 2018 International Fire Code, Chapter 33, during construction.
3. Where access to or within a structure or area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. Buildings with fire sprinkler or fire alarm systems, or buildings not equipped with and exterior means of electrical disconnect, shall be provided with a key box. The key box shall be of an approved type, installed with the top of the box being 5 feet to 6 ½ feet above finished grade and shall contain keys to gain necessary access. For more information and an application, please call 633-1104.
4. A minimum of one fire department apparatus access road is required to all buildings. The fire code official is authorized to require more than one fire apparatus access road when it is

- determined that a single means of access is insufficient. Approved secondary access shall be provided for groups of 20 or more dwelling units, road(s) with dead ends or with a single point of access in excess of 600 feet and for all commercial and industrial developments. Fire apparatus roads shall have an unobstructed width of not less than 24 feet, exclusive of shoulders, except for approved access gates in accordance with Section 503.6 of the International Fire Code, provided no parking is allowed and not less than 40 feet if parallel parking is allowed on both sides and an unobstructed vertical clearance of not less than 13 feet 6 inches. For Group R, Division 3 Residential Subdivision, the minimum width of the fire apparatus access road is 36 feet, measured face of curb to face of curb.
5. Fire apparatus access roads shall be marked where required to prohibit parking and other obstructions. Marking shall consist of painting the curb, or the side of the street, where no curb is present, with a suitable coat of industrial red enamel along the entire length of road where parking is prohibited. Each section of curb that is painted red shall also be marked by signage stating "NO PARKING FIRE LANE". Signs are to be installed no higher than 10 feet or less than 6 feet from the surface of the roadway. Signs shall be located at each end of painted curb, and additionally in between so that the maximum separation between signs is 100 feet, as measured along the centerline of the fire apparatus access road.
 6. Gates restricting traffic across access lanes shall be operable by the fire department. Gates shall be electrically powered, provided with an AVI loop, and have a back-up battery system in case of normal power loss. The AVI loop shall be located 10 feet perpendicularly from the face of the access gate along the route of arrival, 10 feet from the public right-of-way, and the loop shall be marked by way of a green reflective marker on the access lane. A Fire Department permit is required to install a gate that obstructs a fire apparatus access road. A separate permit is required for each gated entrance.
 7. Dead-ends longer than 150 feet shall be provided with a clear turnaround with a diameter of 104 feet for commercial and multi-family R-1 and R-2 occupancies and 90 feet for R-3 occupancies and single-family dwellings (built under the IRC only).
 8. In all residential areas (R-3 occupancies and single-family dwelling built under the IRC only), hydrants shall be spaced not to exceed 500 feet, or 600 feet if all homes are protected by approved automatic fire sprinklers systems. In all commercial and industrial areas, including multi-family R-1 and R-2 occupancies, hydrants shall be spaced not to exceed 300 feet, or 400 feet if all buildings are protected by approved automatic sprinkler systems and 1000 feet where not required for structures to provide for transportation hazards. Hydrant spacing may be increased by 100 feet if all structures within the development are provided with sprinkler protection. There is no allowable increase for hydrants installed for transportation hazards.
 9. On any residential or commercial construction project, accessible fire hydrants shall be installed before actual construction commences. Fire hydrants shall be provided within 300 feet of combustible material storage and framing construction. A hydrant flow test is required, which shall include static pressure and water flow volume showing the ability to meet the required fire flow, and must be presented to the North Las Vegas Building and Fire Safety Division, Fire Safety Section and the Public Works Department.
 10. No fire hydrants shall be located within six (6) feet of a driveway, power pole, light standard, or any other obstruction or within fifteen (15) feet of a curb return or driveway in an industrial or commercial area. For wall, fence and planter locations, a perimeter around the hydrant measuring a minimum of 3 feet from its exterior shall be maintained clear of all obstructions at all times. Fire hydrants shall be located 4 feet to 7 feet from the back of curb. Where it is not possible to locate the hydrant a minimum of 4 feet from the back of the curb, the hydrant shall be protected against vehicular impact in accordance with Section 312 of the 2018 of the International Fire Code.
 11. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1. For buildings other than high-rise buildings, a reduction in required fire flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. A reduction in the required fire flow of up to 25 percent is permitted in high-rise buildings. The resulting fire flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in table B105.1.

12. When automatic fire protection is required, the fire department connection (FDC) shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the building for other fire apparatus. It shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access. Immediate access to FDC shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. A working space of not less than 36 inches in width, 36 inches in depth and 78 inches in height not including any doors or windows, shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections. The maximum distance from a fire hydrant to a FDC supplying fire sprinklers and/or standpipes shall not exceed 100 feet, as measured by an approved route. An approved route is defined as an unobstructed path of travel on which fire apparatus can maneuver and on which hose can easily be laid.

E. General Stormwater Notes

1. The Owner, Site Developer, Contractor, and/or their authorized agents shall each day remove all sediment, mud, construction debris, or other potential pollutants that may have been discharged to, or accumulated in, the public rights of way as a result of construction activities associated with this site development or construction project. Such materials shall be prevented from entering the storm sewer system.
2. Additional construction site discharge best management practices may be required of the owner or his/her agents due to unforeseen erosion problems or if the submitted plan does not meet the performance standards specified in the City of North Las Vegas and the *Las Vegas Valley Construction Site BMP Guidance Manual*.
3. Temporary or permanent stabilization practices will be installed on disturbed areas as soon as practicable and no later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Some exceptions may apply; refer to the Nevada Stormwater General Permit for Construction Activity NVR100000, Section III.A.5.
4. At a minimum, the Contractor or his agent shall inspect all disturbed areas, areas used for storage of materials and equipment that are exposed to precipitation, vehicle entrance and exit locations, and all BMPs weekly, and within 24 hours after any rain event of 0.5 inches or more. The Contractor or his agent shall update or modify the Stormwater Pollution Prevention Plan as necessary. Some exceptions to weekly inspections may apply, such as suppression of land disturbance activities. Refer to the Nevada Stormwater General Permit for Construction Activity NVR100000, Section III.A.12.
5. Accumulated sediment in BMPs shall be removed within seven days after a stormwater runoff event or prior to the next anticipated storm event, whichever is earlier. Sediment must be removed when BMP design capacity has been reduced by 50 percent or more.

F. Americans with Disabilities Act Note

Compliance with the U.S. Department of Justice - Americans with Disabilities Act (ADA) regulations, guidelines and standards for all on-site development is entirely the responsibility of the design professional. The City of North Las Vegas does not approve or endorse any ADA details shown hereon. A separate accessibility plan that meets the requirements set forth in the 2018 IBC chapter 11 and 2009 ICC/ANSI A117.1, including site access to and from the public right-of-way, must be submitted to the Building & Safety Division for review prior to construction of any on-site accessibility improvements. Any accessibility details shown hereon are for reference only.