CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.

2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.

3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.

4. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.

5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD 320A WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.

6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.

7. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.

8. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.

9. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED JUNE 28, 2016 (LD VERSION)

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.

3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.

4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.

5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.

6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0'TO −0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'+	+0.1'TO −0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.

9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.

10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 04/15/10

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS'CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.

3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.

4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.

5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.

6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y"S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.

7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.

8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.

9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.

10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE & RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.

2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S – APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.

3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE & RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [IFC § 105.7.12]

4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]

5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]

6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]

7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED A.W.W.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]

8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]

9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]

10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC § 507]

11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
RESIDENTIAL – 500 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
COMMERCIAL – 300 FEET UNSPRINKLERED; 400 FEET SPRINKLERED.

12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]

13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.

14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]

15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]

16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]

17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]

18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]

19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]

20. THE GRADIENT FOR THE FIRE APPARATUS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]

21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC § 503.2.4]

22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [IFC § 503.2.1]

23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL NOT BE LESS THAN 24 FT. [IFC § 503.2.1.1]

24. FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC § 503.1.1]

25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FT IN HEIGHT, OR EXCEEDING 62,000 SQ FT IN AREA. [IFC § 503.1.2]

26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC § 503.2.5]

27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACES ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC § 503.3]

28. ELECTRONICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC § 503.6 AND IFC APPENDIX M.

EFFECTIVE DATE 03-01-2016

DEVIATIONS FROM STANDARDS

NONE.

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".

2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.

6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.

8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.

11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY, REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.

15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:
16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.

17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.

18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.

21. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.
OR

22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.

23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 06/04/2018

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES:

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.

2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC.

3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION..

4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099.

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION HIGH PRESSURE NOTES ON THE NOTES SHEET AND ALL SHEETS DEPICTING HIGH PRESSURE NATURAL GAS MAINS AS INDICATED BELOW:

CAUTION: HIGH PRESSURE GAS!!
CALL SOUTHWEST GAS AT 702-400-1789 FOR STAND-BY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

Pamela Kennedy 4-22-19

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.

3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.

4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.

5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CCAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

10. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

12. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

13. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

14. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED 7/3/13

LAS VEGAS VALLEY WATER DISTRICT NOTES

LVVWD PROJECT # 135386

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.

2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.

3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.

4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.

5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.

6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.

8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.

9. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.

10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.

11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.

12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.

14. THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

15. NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135386 FIRST APPROVED DATE: 5-6-19

QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
CURB & GUTTER (TYPE "L" & "A")	1,639 LF	LF
CROSS GUTTER	2,251 SF	SF
SIDEWALK 4"	12,737 SF	SF
SIDEWALK RAMP	13 EA	EA
SIDEWALK UNDERDRAIN	3 EA	EA
TYPE II GRAVEL	545 CY	CY
3" AC PAVEMENT	26 SY	SY
4" AC PAVEMENT	1,939 SY	SY
PAVEMENT STRIPING COLLECTOR	829 LF	LF
STREETLIGHT (STANDARD BASE)	2 EA	EA
STREET/STOP SIGNS	10 EA	EA

SEWER QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
6" SEWER	LF	79.50 LF
8" SEWER	LF	298.11 LF
12" SEWER	LF	25.13 LF
48" SSMH	EA	2 EA
60" SSMH	1 EA	EA
72" SSMH	1 EA	EA

WATER QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
10" WATER	154 LF	LF
12" WATER	313 LF	LF
IRRIGATION SLEEVES	73 LF	LF

STORM DRAIN QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
24" STORM DRAIN	21 LF	LF
30" STORM DRAIN	59 LF	LF
36" STORM DRAIN	13 LF	LF
15' MODIFIED TYPE C INLET	1 EA	EA
30' MODIFIED TYPE C INLET	1 EA	EA
72" SDMH	4 EA	EA
48" SDMH	EA	1 EA

A.P.N.:

139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK 8LV0134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

NOTE:

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SAFETY ALERT
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call Before You Overhead 1-702-227-2929
Call before you UnderGround 1-702-432-5300
Call before you dig — Avoid cutting underground utility lines. It's costly.
Call 811 OR FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION 1-800-227-2600

LEGEND

CL OR SURVEY LINE; PROPERTY LINE; ROW LINE; EASEMENT LINE; SAWCUT LINE; SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ						BWV				
PROPOSED:	2122								12.34 BC		Ⓢ						BWV				

MANHOLE DESCRIPTIONS
Ⓢ = SANITARY SEWER
Ⓓ = STORM DRAIN
Ⓔ = ELECTRICAL
Ⓣ = TELEPHONE

Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

REV.: | DATE: | BY: | DESCRIPTION:

SHEET: GENERAL NOTES SHEET
PROJ#:135386A QS:139-34-NW
TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.: 171126
DATE: 04/08/19
SCALE: NA
DRAWN BY: NMG
DESIGNED BY: NMG
CHECKED BY: GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526 — 04/08/19

SHEET No. C1.02
SHEET 2 OF 15
CLV No. 107V7521
L18-02490

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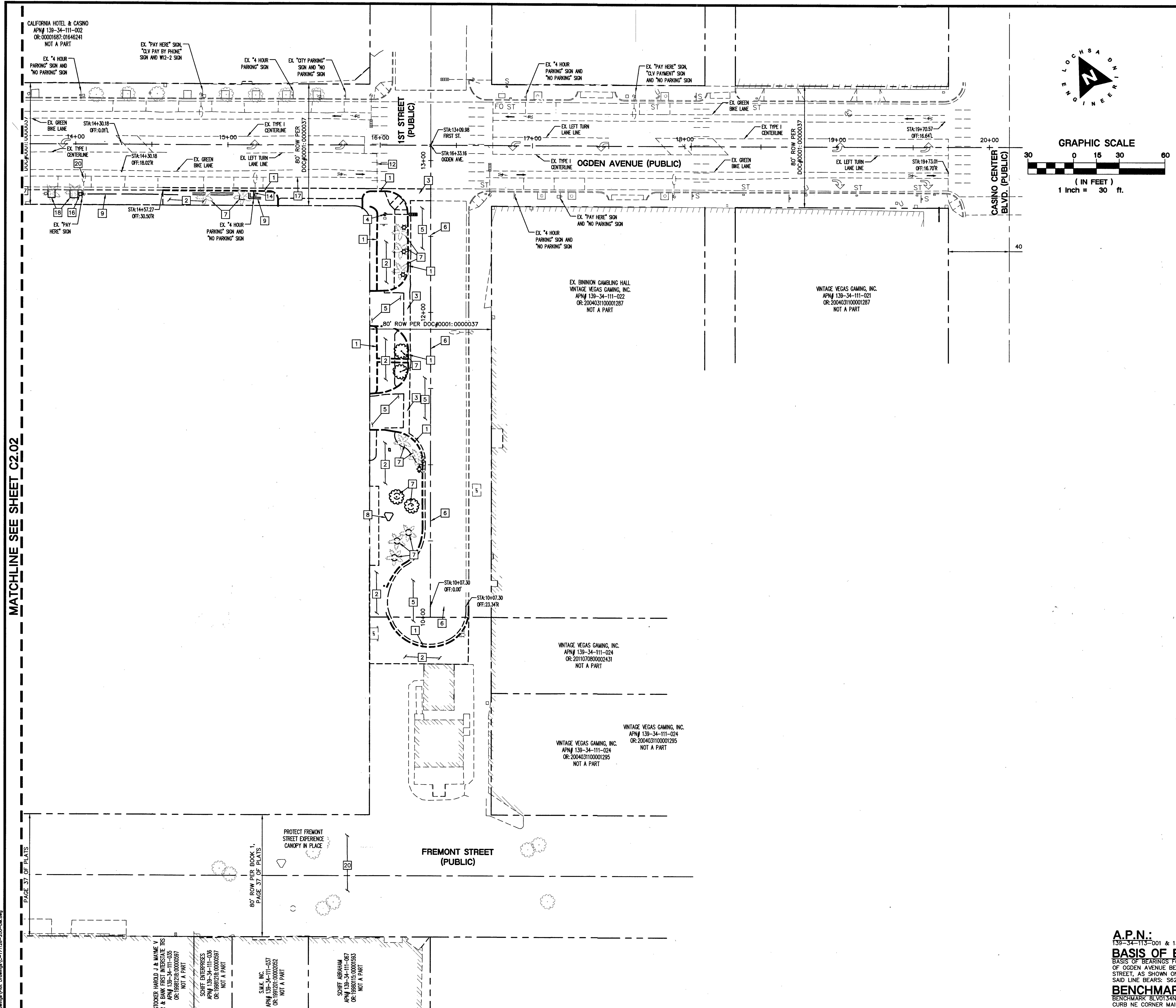

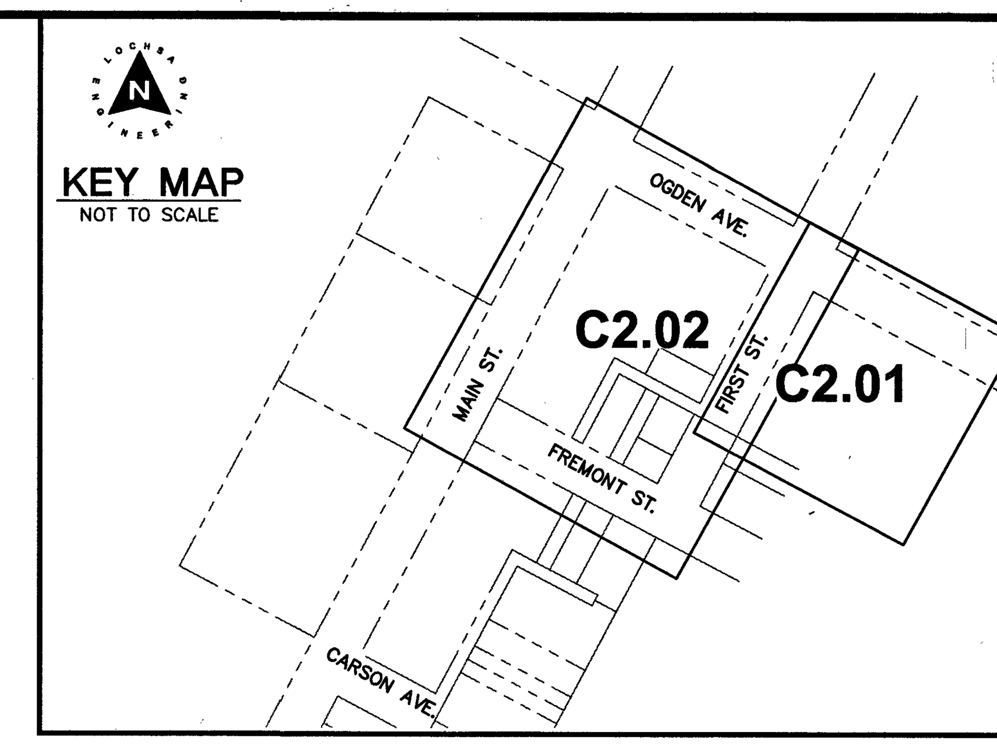

NOTE:

1. SEE SHEETS C5.01, C5.02 FOR WATER AND SEWER DEMOITION AND RELOCATION
2. SEE SHEETS C4.01, C4.02 FOR STORM DRAIN DEMOLITION AND RELOCATION.
3.

DEMOLITION NOTES:

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– NOT ALL NOTES USED ON THIS SHEET –

1 REMOVE & DISPOSE OF EXISTING CURB AND GUTTER.
2 REMOVE & DISPOSE OF EXISTING SIDEWALK.
3 REMOVE & DISPOSE OF EXISTING CROSS GUTTER.
4 RELOCATE EXISTING SIGNAL/STREET LIGHT POLE.
5 REMOVE & DISPOSE OF EXISTING AC.
6 SAWCUT AND MATCH EXISTING.
7 RELOCATE EXISTING LANDSCAPE. SEE LANDSCAPE PLANS FOR RELOCATION AND NEW PLANTING.
8 REMOVE EX SIGN AND RETURN TO OWNER
9 REMOVE EX WALL
10 REMOVE EX FENCE AND RETURN TO OWNER
11 REMOVE EX BOLLARDS AND RETURN TO OWNER
12 OBLITERATE EX. STRIPING.
13 OBLITERATE EX. PARKING LINES.
14 REMOVE EX. SIGNS.
15 REMOVE EX. SIGNS. EX. W12-2 SIGN TO REMAIN.
16 REMOVE EX. PARKING PAYMENT KIOSK AND RETURN TO CLV.
17 OBLITERATE EX. GREEN BIKE LANE.
18 EX. TREES TO BE REMOVED AND REPLACED. SEE LANDSCAPE PLANS FOR RELOCATION AND NEW PLANTING.
19 EX. ELEC. TO BE REMOVED/RELOCATED OR ADJUSTED TO GRADE PER ELEC. PLAN.
20 PROTECT IN PLACE

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A.P.N.:

139-34-113-001 & 139-34-112-001

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BENCHMARK:

BENCHMARK 8LV0134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

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EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN						BWV				
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV				

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REV.:	DATE:	BY:	DESCRIPTION:

Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

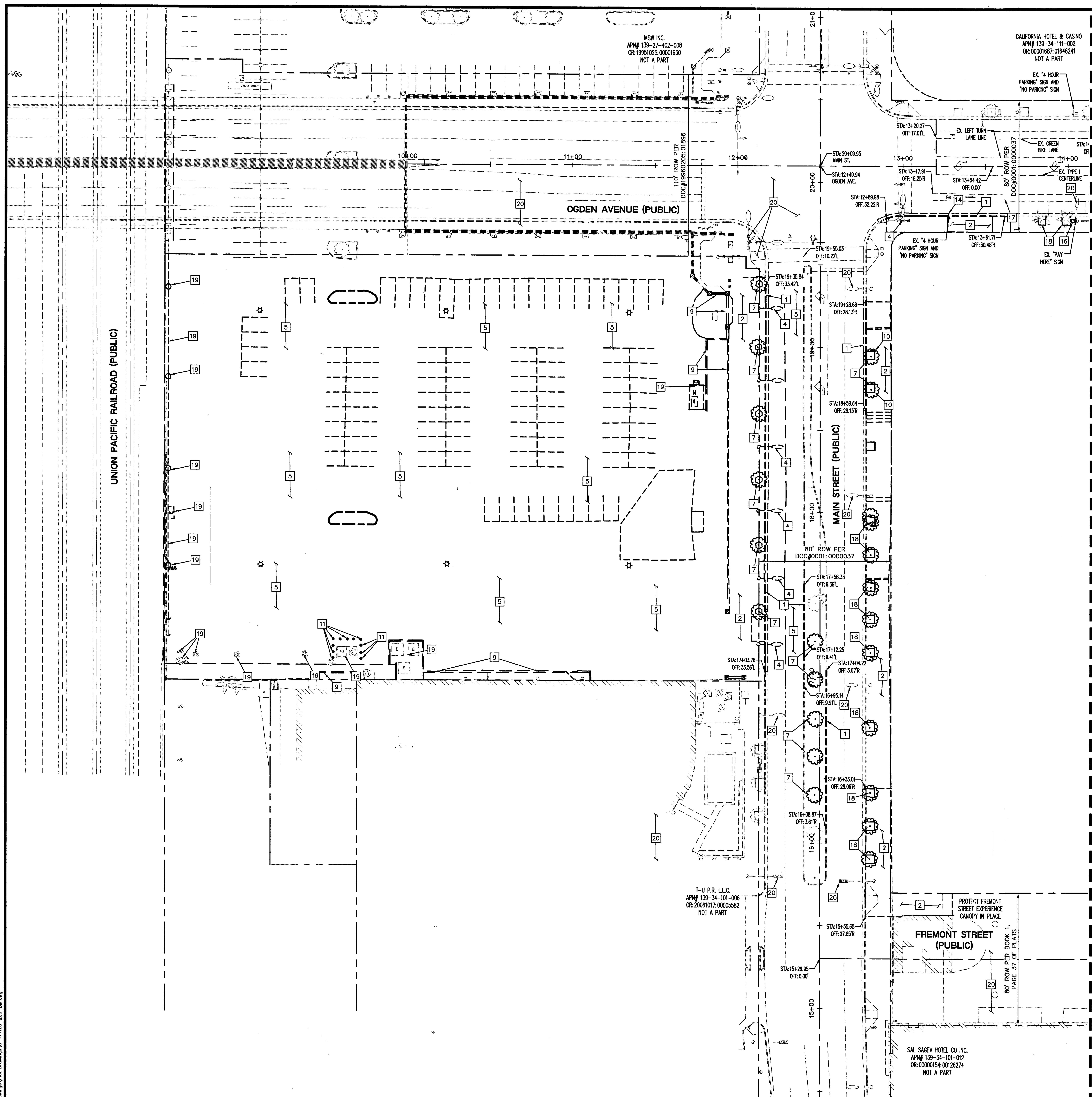
SHEET: DEMOLITION PLANS SHEET 1 OF 2

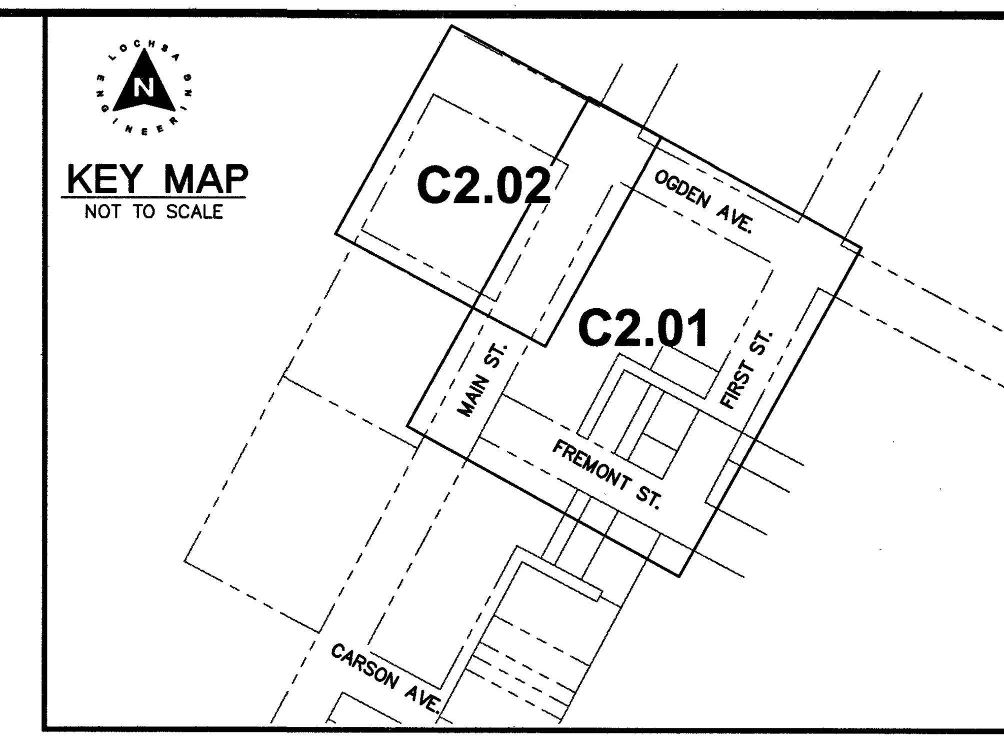
TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.: 171126
DATE: 04/08/19
SCALE: 1"=30'
DRAWN BY: JWN
DESIGNED BY: NMG
CHECKED BY: GMM

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
GUY M. MORRIS
EXP. 12-31-19
CIVIL
No 14526
04/08/19

SHEET No.
C2.01
SHEET 3 OF 15
CLV No. 107V7521
L18-02490





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 Inch = 30 ft.

NOTE:

1. SEE SHEETS C5.01, C5.02 FOR WATER AND SEWER DEMOITION AND RELOCATION
2. SEE SHEETS C4.01, C4.02 FOR STORM DRAIN DEMOLITION AND RELOCATION.
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A.P.N.:

139–34–113–001 & 139–34–112–001

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www.lochsa.com

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REV.:	DATE:	BY:	DESCRIPTION:

SHEET: **DEMOLITION PLANS SHEET 2 OF 2**

TITLE: **18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS**

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1"=30'
DRAWN BY:	JWN
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
GUY M. MORRIS
EXP. 12-31-19
CIVIL
No. 14526
04/08/19

SHEET No.
C2.02
SHEET 4 OF 15

CLV No. 107V7521
L18-02490

LEGEND

CL OR SURVEY LINE	——— — — ———
PROPERTY LINE	——— - - - ———
ROW LINE	——— — — — ———
EASEMENT LINE	—— —— ——
SAWCUT LINE	/\/\/\/\/\/\
SCARP LINE	▶———————

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
EXISTING:	— —(2210)— —								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER		⊗	▷	○		BWV				
PROPOSED:	(2122)								12.34 BC		Ⓢ	Ⓓ = STORM DRAIN Ⓔ = ELECTRICAL Ⓣ = TELEPHONE			▶	●		BWV				

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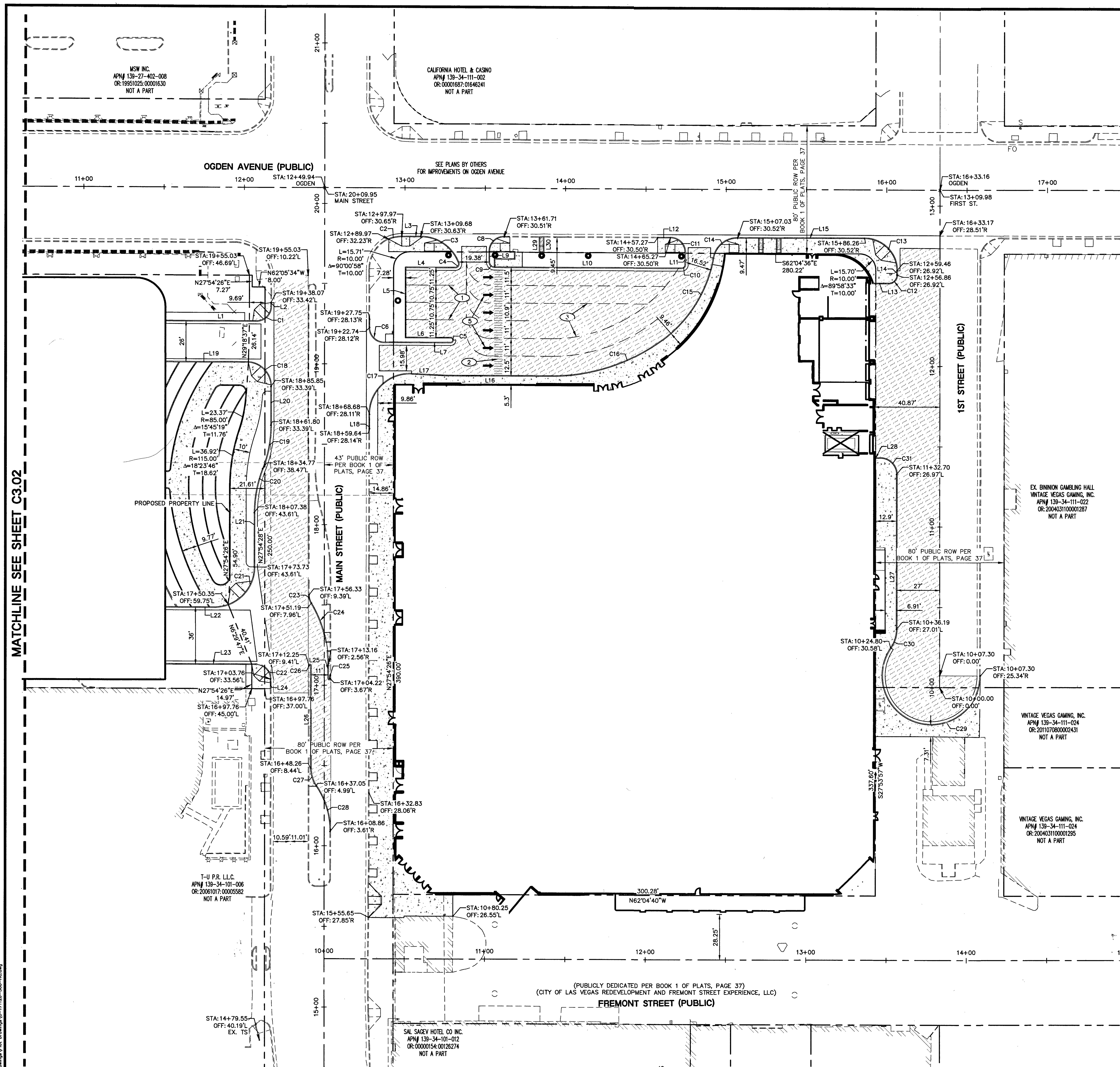

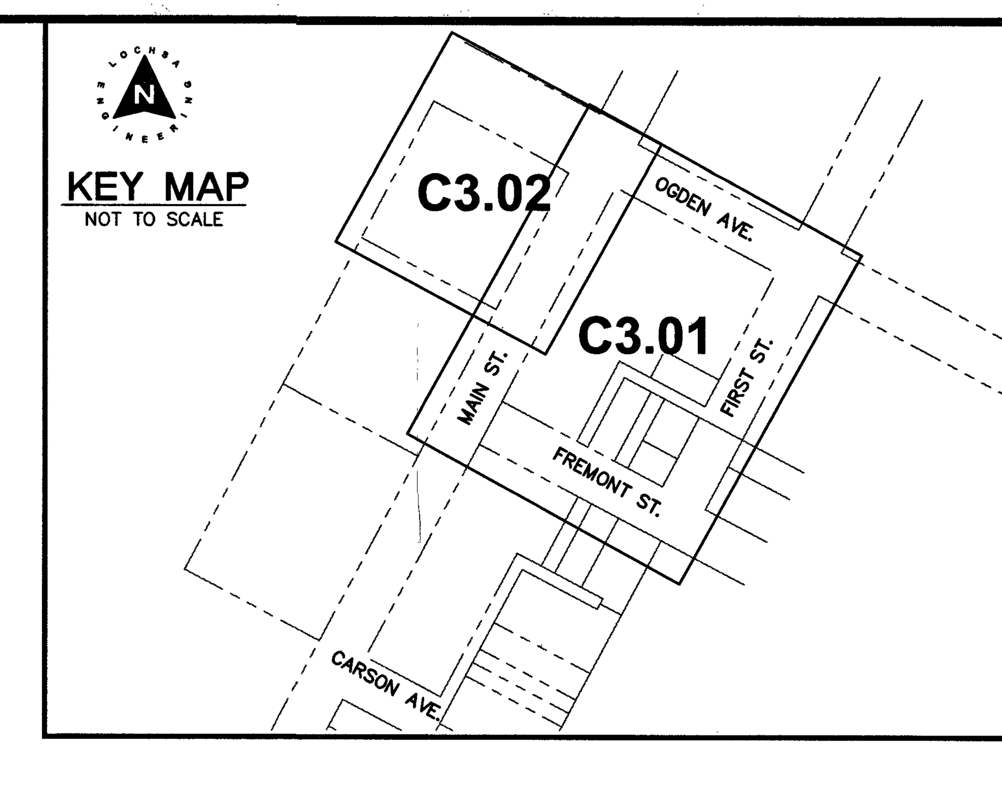

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C1	14.16'	9.00'	090°09'45"	9.03'
C2	8.20'	22.66'	020°44'07"	4.14'
C3	30.37'	25.00'	069°36'15"	17.38'
C4	3.86'	2.00'	110°30'12"	2.88'
C5	4.12'	1.31'	180°00'00"	INFINITY'
C6	14.14'	9.00'	090°00'39"	9.00'
C8	14.12'	9.00'	089°52'36"	8.98'
C9	4.71'	3.00'	090°00'56"	3.00'
C10	3.14'	2.00'	089°59'04"	2.00'
C11	14.14'	9.00'	090°00'00"	9.00'
C12	7.90'	5.00'	090°34'51"	5.05'
C13	31.42'	20.00'	090°00'00"	20.00'
C14	20.92'	15.00'	079°54'54"	12.57'
C15	62.36'	82.00'	043°34'33"	32.78'
C16	73.57'	116.05'	036°19'25"	38.07'
C17	40.47'	25.00'	092°45'42"	26.24'
C18	23.59'	15.00'	090°06'20"	15.03'
C19	27.66'	74.50'	021°16'21"	13.99'
C20	28.03'	75.50'	021°16'21"	14.18'
C21	39.27'	25.00'	090°00'02"	25.00'
C22	14.11'	9.00'	089°50'42"	8.98'
C23	5.40'	10.00'	030°57'08"	2.77'
C24	39.93'	74.00'	030°55'04"	20.46'
C25	1.75'	0.56'	179°55'05"	778.87'
C26	1.51'	0.48'	179°58'05"	1723.31'
C27	11.91'	20.00'	034°06'30"	6.14'
C28	29.91'	50.00'	034°16'42"	15.42'
C29	115.04'	30.70'	214°43'58"	98.15'
C30	12.12'	20.00'	034°43'02"	6.25'
C31	15.71'	10.00'	090°00'57"	10.00'

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	56.95'	S62°05'32"E
L2	2.23'	S27°44'43"W
L3	11.71'	S62°12'00"E
L4	31.04'	S62°05'32"E
L5	44.00'	S27°54'28"W
L6	28.19'	S62°05'32"E
L7	41.34'	S62°05'32"E
L9	6.79'	N27°55'24"E
L10	116.53'	S62°05'32"E
L11	7.77'	N27°55'24"E
L12	8.00'	N62°04'36"W
L13	10.14'	S62°05'32"E
L14	2.60'	N27°55'24"E
L15	79.23'	S62°04'36"E
L16	64.26'	N62°05'32"W
L17	22.96'	S59°33'45"E
L18	9.04'	N27°40'33"E
L19	50.97'	S62°05'32"E
L20	23.99'	N27°54'26"E
L21	33.64'	N27°54'26"E
L22	30.83'	S62°05'32"E
L23	56.48'	S62°05'32"E
L24	5.96'	S27°45'10"W
L25	8.94'	N27°54'03"E
L26	63.99'	N27°54'03"E
L27	96.52'	N27°55'24"E
L28	4.08'	S62°05'33"E
L29	9.36'	N27°44'08"E
L30	9.36'	N27°44'08"E

TRAFFIC NOTES:

1. INSTALL PARKING WITH 4" WHITE PAINTED LINES. (TYPICAL)
2. INSTALL WHITE PAINTED LINES IN CROSSWALK AREA.
3. INSTALL 4" WHITE PAINTED LANE LINES. (TYPICAL)
4. INSTALL PRE-CAST BUMP BLOCK 2' FROM FACE OF CURB PER CCAUSD NO. 238 – DETAIL 5 ON C7.01.
5. ARROWS SEE 171208.

A.P.N.:

139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK 8LV0134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

NOTE:

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1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION 1-800-227-2600
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811

LEGEND

CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV				
PROPOSED:	(2122)								12.34 BC		Ⓢ							BWV				

REV.: | DATE: | BY: | DESCRIPTION:

Lochsa engineering
6345 South Jones Blvd. Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

SHEET: HORIZONTAL CONTROL PLANS SHEET 1 OF2

TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.: 171126
DATE: 04/08/19
SCALE: 1"=30'
DRAWN BY: NMG
DESIGNED BY: NMG
CHECKED BY: GMM

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
GUY M. MORRIS
EXP. 12-31-19
CIVIL
No. 14526
04/08/19

SHEET No.
C3.01
SHEET 5 OF 15

CLV No. 107V7521
L18-02490

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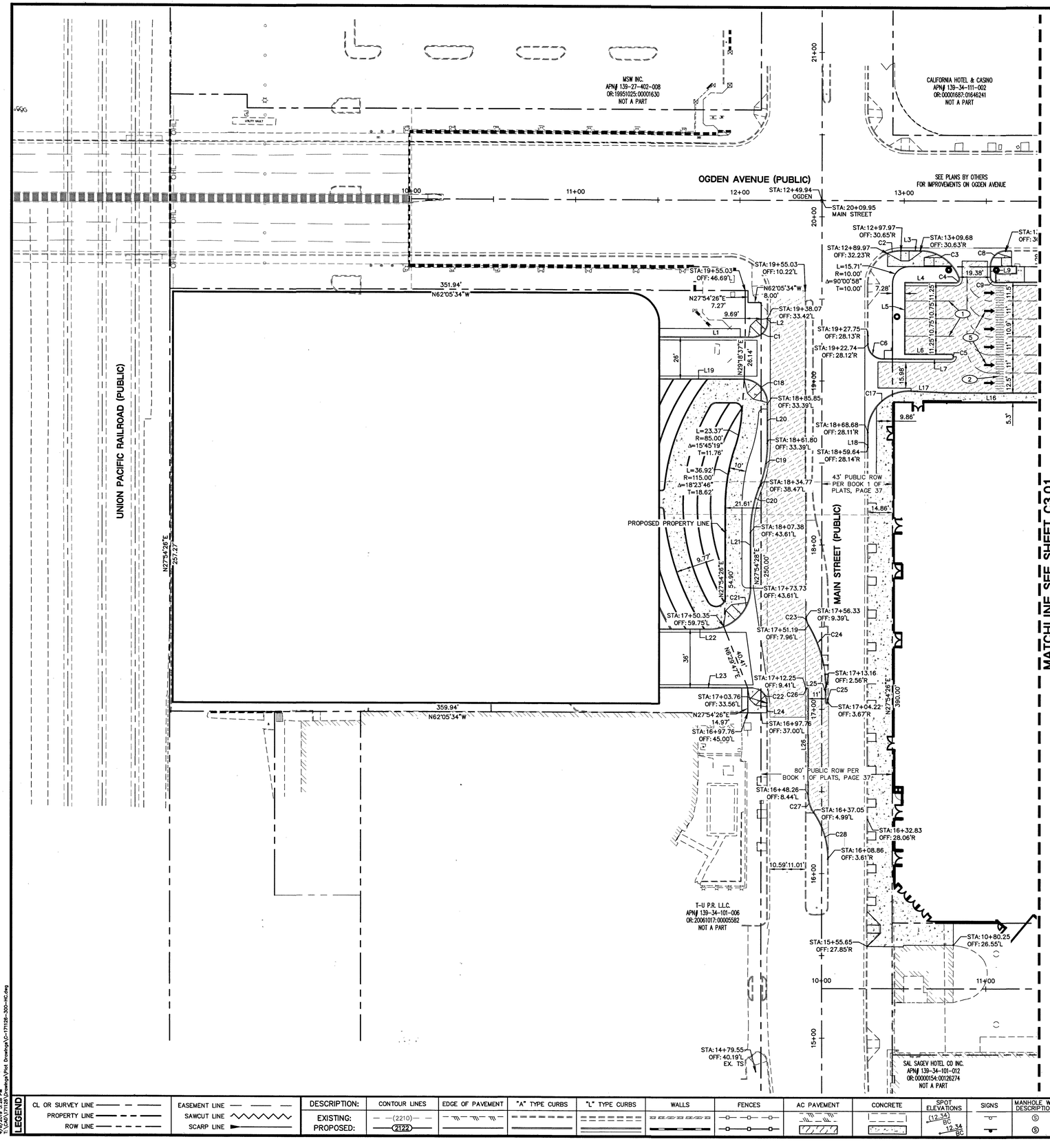

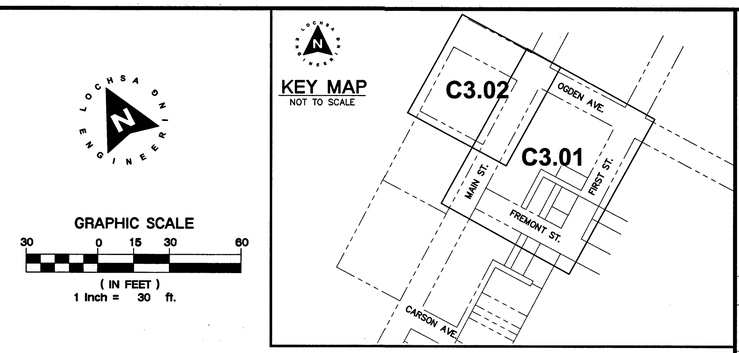

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C1	14.16'	9.00'	090°09'45"	9.03'
C2	8.20'	22.66'	020°44'07"	4.14'
C3	30.37'	25.00'	069°36'15"	17.38'
C4	3.86'	2.00'	110°30'12"	2.88'
C5	4.12'	1.31'	180°00'00"	INFINITY'
C6	14.14'	9.00'	090°00'39"	9.00'
C8	14.12'	9.00'	089°52'36"	8.98'
C9	4.71'	3.00'	090°00'56"	3.00'
C10	3.14'	2.00'	089°59'04"	2.00'
C11	14.14'	9.00'	090°00'00"	9.00'
C12	7.90'	5.00'	090°34'51"	5.05'
C13	31.42'	20.00'	090°00'00"	20.00'
C14	20.92'	15.00'	079°54'54"	12.57'
C15	62.36'	82.00'	043°34'33"	32.78'
C16	73.57'	116.05'	036°19'25"	38.07'
C17	40.47'	25.00'	092°45'42"	26.24'
C18	23.59'	15.00'	090°06'20"	15.03'
C19	27.66'	74.50'	021°16'21"	13.99'
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TRAFFIC NOTES:

1. INSTALL PARKING WITH 4" WHITE PAINTED LINES. (TYPICAL)
2. INSTALL WHITE PAINTED LINES IN CROSSWALK AREA.
3. INSTALL 4" WHITE PAINTED LANE LINES. (TYPICAL)
4. INSTALL PRE-CAST BUMP BLOCK 2' FROM FACE OF CURB PER CCAUSD NO. 238 – DETAIL 5 ON C7.01.
5. ARROWS SEE 171208.

NOTE:

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A.P.N.:

139-34-113-001 & 139-34-112-001

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BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK BLV0134NNWS BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

SAFETY ALERT

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REQUIRED BY LEGAL STATE OF NEVADA

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
PROPERTY LINE	SAWCUT LINE	EXISTING:	(2210)								(12.34) BC		S	S = SANITARY SEWER						BWV				
ROW LINE	SCARP LINE	PROPOSED:	2122								12.34 BC		S	D = STORM DRAIN E = ELECTRICAL T = TELEPHONE						BWV				

Lochsa engineering
6341 South Jones Blvd
Suite 100
Las Vegas, NV 89118
Phone: (702) 365-6310
Fax: (702) 365-6317
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

SHEET: HORIZONTAL CONTROL PLANS
SHEET 2 OF 2

TITLE: 18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

PROJECT No.: 171126
DATE: 04/08/19
SCALE: 1"=30'
DRAWN BY: NMG
DESIGNED BY: NMG
CHECKED BY: GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA
GUY M. MORRIS
EXP. 12-31-19
CIVIL
No. 14526
04/08/19

SHEET No.
C3.02
SHEET 6 OF 15

CLV No. 107V7521
L18-02490

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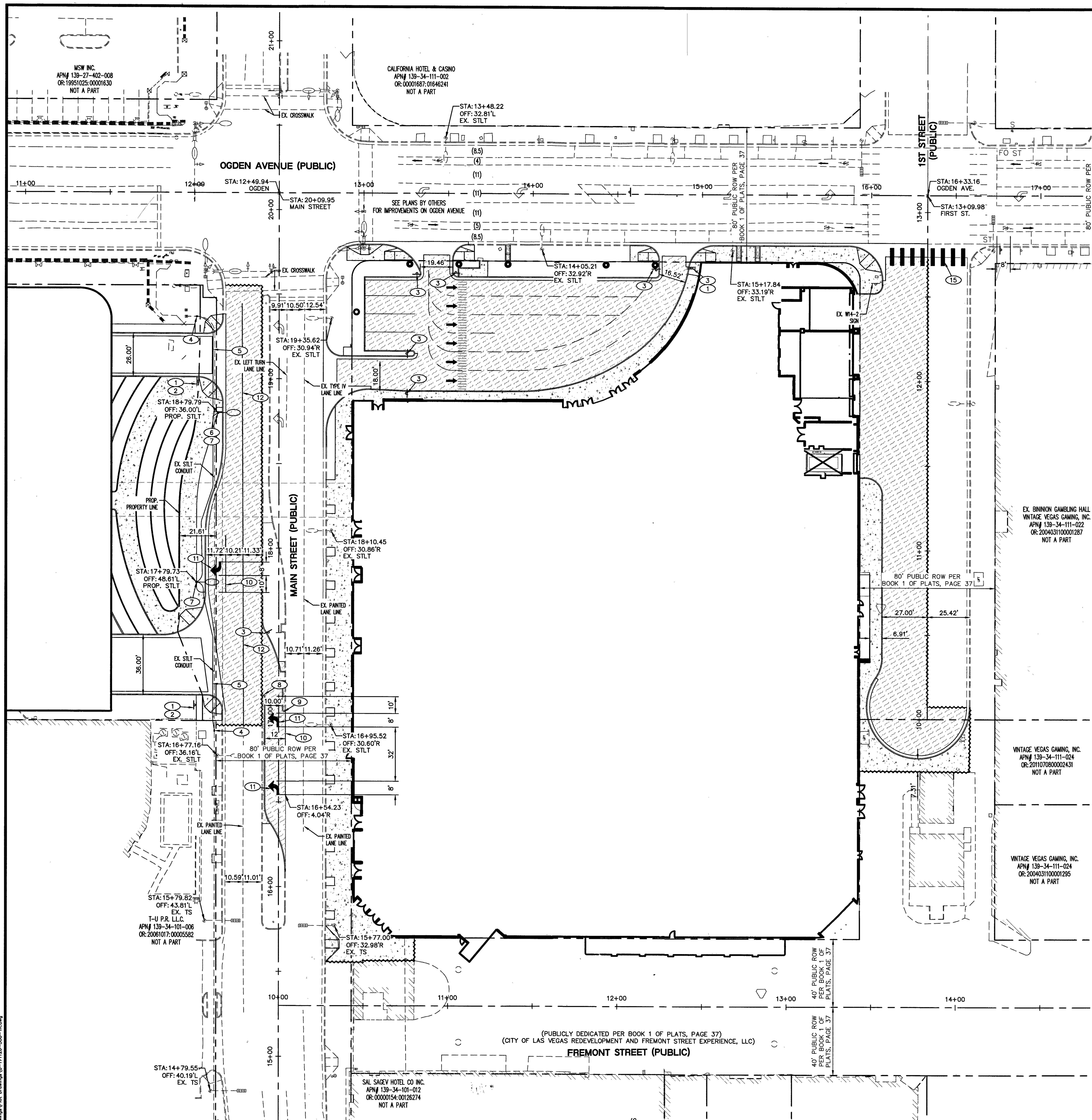
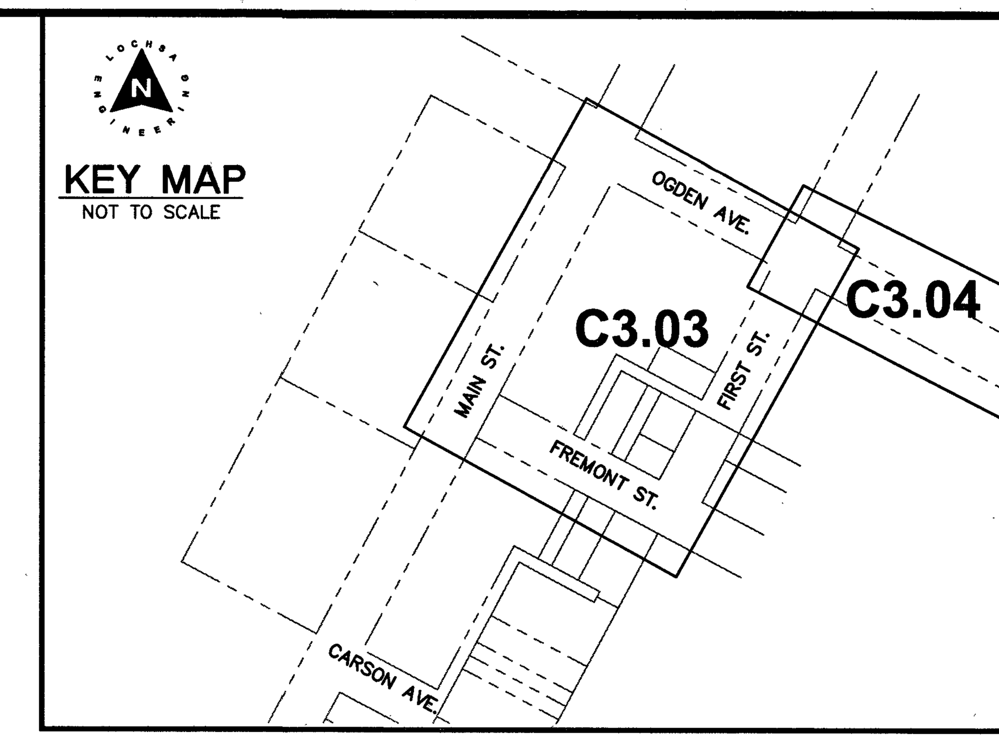


GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 Inch = 30 ft.



TRAFFIC NOTES:

1. INSTALL R1-1 STOP SIGN (36").
2. INSTALL R3-2 SIGN (24"x24").
3. INSTALL R5-1 SIGN (36"x36").
4. INTERCEPT EX. CONDUIT. INSTALL NO 3-1/2 PULLBOX PER CCAUSD NO. 326. REPULL CONDUCTORS WITHOUT SPLICING.
5. INSTALL 1-1/4" PVC CONDUIT W/ (2) #4 & (1) #8 CONDUCTORS.
6. INSTALL RELOCATED R2-1 SIGN (30"x36") & R4-4 SIGN (36"x30").
7. INSTALL STREETLIGHT STANDARD PER CLV DOWNTOWN CENTENNIAL STANDARDS.
8. INSTALL YELLOW MEDIAN NOSE MARKINGS PER CCAUSD NO. 246.
9. INSTALL WHITE MEDIAN NOSE MARKINGS PER CCAUSD NO. 246.
10. INSTALL WHITE PAINTED TURN LANE LINE.
11. INSTALL WHITE TYPE II FILM PAVEMENT MARKING.
12. INSTALL WHITE PAINTED LANE LINE.
13. INSTALL YELLOW K71 MARKER.
14. INSTALL WHITE TYPE II FILM 24" WIDE STOP BAR.
15. INSTALL WHITE TYPE I FILM WHITE CROSSWALK MARKINGS PER CCAUSD NO. 254.
16. INSTALL FORCED TURN LANE LINE PER CCAUSD NO. .
17. INSTALL R3-7R SIGN (36"x36").

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PROPERTY LINE	SAWCUT LINE
ROW LINE	SCARP LINE

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EXISTING:	(2210)								(12.34) BC		Ⓢ
PROPOSED:	2122								12.34 BC		Ⓢ

MANHOLE DESCRIPTIONS
Ⓢ = SANITARY SEWER
Ⓓ = STORM DRAIN
Ⓔ = ELECTRICAL
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FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
					BWV				
					BWV				

REV.:	DATE:	BY:	DESCRIPTION:

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Suite 100
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Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

SHEET: TRAFFIC CONTROL PLANS
TRAFFIC CONTROL PLAN

TITLE: 18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1"=30'
DRAWN BY:	JWN
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA, GUY M. MORRIS, EXP. 12-31-19, CIVIL, No. 14526, 04/08/19

SHEET No. C3.03
SHEET 7 OF 15
CLV No. 107V7521
L18-02490

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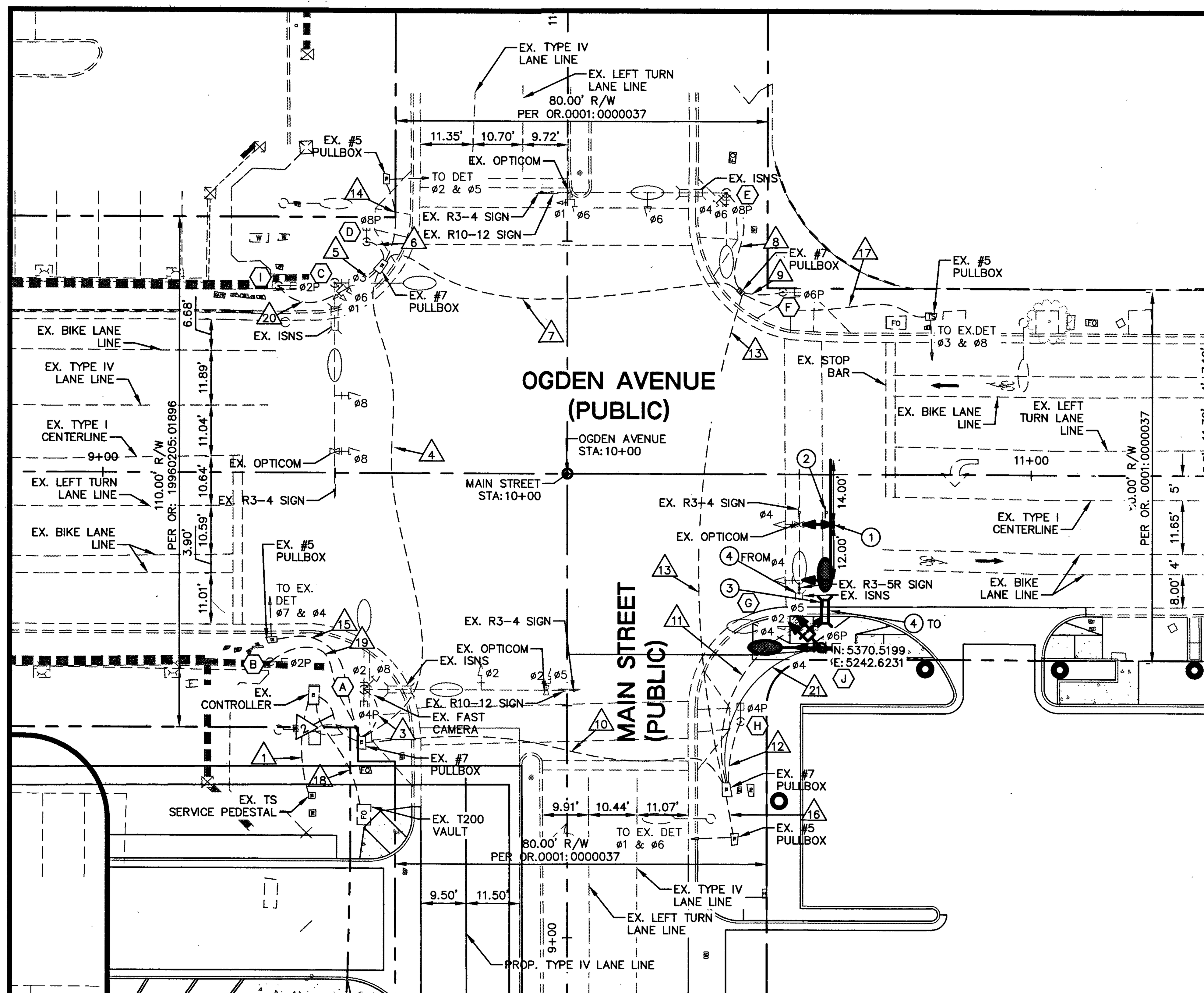


CONDUIT AND WIRE SCHEDULE

WIRE & CONDUCTOR	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	REMARKS
EX. (4) #4 EX. (1) #8	SERVICE PEDISTAL	CONTROLER	X																					
(1) 25 COND #14 (1) OPTICOM CABLE	CONTROLLER	POLE J		X								X											X	INSTALL NEW WIRE
EX. (1) 15 COND #14	CONTROLLER	POLE I		X		X																X		
EX. (1) 25 COND EX. (1) OPTICOM CABLE	CONTROLLER	POLE A		X	X																			
EX. (1) 15 COND #14	CONTROLLER	POLE B		X																	X			
EX. (1) 25 COND #14 EX. (1) OPTICOM CABLE	CONTROLLER	POLE C		X		X	X																	
EX. (1) 15 COND #14	CONTROLLER	POLE D		X		X		X																
EX. (1) 25 COND #14 (1) OPTICOM CABLE	CONTROLLER	POLE E		X		X			X	X														
EX. (1) 15 COND #14	CONTROLLER	POLE F		X		X			X		X													
EX. (1) 25 COND #14 (1) OPTICOM CABLE	CONTROLLER	POLE G		X								X	X											REMOVE EXISTING WIRE
EX. (1) 15 COND #14	CONTROLLER	POLE H		X								X		X										
EX. (4) #10 COND	CONTROLLER	POLE A (INT. LIGHTING)		X	X																			
EX. (4) #10 COND	CONTROLLER	POLE C (INT. LIGHTING)		X		X	X																	
EX. (4) #10 COND	CONTROLLER	POLE E (INT. LIGHTING)		X		X			X	X														
EX. (4) #10 COND	CONTROLLER	POLE G (INT. LIGHTING)		X								X	X											REMOVE EXISTING WIRE
(4) #10 AWG THW (1) #8 AWG THW	CONTROLLER	POLE J (INT. LIGHTING)		X								X											X	INSTALL NEW WIRE
EX. 6PR #18 LOOP LEAD IN CABLE (ø2&ø5)	CONTROLLER	DET PULL BOX		X		X										X								
EX. 6PR #18 LOOP LEAD IN CABLE (ø4&ø7)	CONTROLLER	DET PULL BOX		X													X							
EX. 6PR #18 LOOP LEAD IN CABLE (ø1&ø6)	CONTROLLER	DET PULL BOX		X								X						X						
EX. 6PR #18 LOOP LEAD IN CABLE (ø3&ø8)	CONTROLLER	DET PULL BOX		X		X			X										X					
EX. CCHU MODEL CA295H CABLE	CONTROLLER	CCTV CAMERA		X	X																			REMOVE EXISTING WIRE
–	TYPE 200 PB	CONTROLLER																		X				
6PR #18 LOOP LEAD IH CABLE	CONTROLLER	ø3 & ø8 DET PULLBOX		X		X			X										X					INSTALL NEW WIRE
CONDUIT SIZE NOTE: (E) INDICATES EXISTING CONDUIT NOTE: (N) INDICATES NEW CONDUIT			(1)-3"(E)	(4)-3"(E) (1)-2"(E)	(1)-3"(E)	(2)-3"(E) (1)-2"(E)	(1)-3"(E)	(1)-2"(E)	(2)-3"(E) (1)-2"(E)	(1)-3"(E)	(1)-2"(E)	(2)-3"(E) (1)-2"(E)	(1)-3"(E)	(1)-2"(E)	(2)-3"(E) (1)-2"(E)	(1)-2"(E)	(1)-2"(E)	(1)-2"(E)	(1)-2"(E)	(1)-4"(E)	(1)-2"(E)	(1)-2"(E)	(1)-3"(N)	

CITY OF LAS VEGAS
TRAFFIC SIGNAL NOTES (CIP):

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL II.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.

CALL-BEFORE-YOU-OVERHEAD	1-702-227-2929
CALL-BEFORE-YOU-DIG	1-800-227-2600
STREETLIGHTS	1-702-229-6331
F.A.S.T.	1-702-432-5300

3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. BRACKET MOUNTED (SIDE-MOUNTED) VEHICLE SIGNAL ASSEMBLIES WITH 2 OR MORE SIGNAL HEADS SHALL HAVE AN ADDITIONAL ELBOW AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 AND SHOWN AS OPTION B IN UNIFORM STANDARD DRAWING NUMBER 844, AND SHALL HAVE A MENERALLAC SUPPORT AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 IF ONE OF THE SIGNAL HEADS CONTAINS 4 OR MORE SIGNAL MODULES.

4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.

5. LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #8 AWG THW (GREEN).

6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE AN APPROVED LED EQUAL TO A 400 WATT HIGH PRESSURE SODIUM CUTOFF (G.E. M400A) WITH MC-111 DISTRIBUTION PER SECTION 623 T.02.19 OF THE SPECIAL PROVISIONS. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINAIRES THERE SHALL BE 2(TWO)-#4 AWG THW CONDUCTORS FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.

7. THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). THE SIGN SHALL BE WIRED TO THE LUMINAIRE DIRECTLY ABOVE IT. IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP. ALL NEW ILLUMINATED STREET NAME SIGNS SHALL HAVE LIGHT EMITTING DIODE (LED) LAMPS PER SECTION 623 T.02.16 OF THE SPECIAL PROVISIONS.

8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.

9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 705, NO. 706, AND NO. 707.

10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.

11. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE "POLARA NAVIGATOR" TYPE (2 WIRE SYSTEM) OR CAMPBELL COMPANY ADVANCED ACCESSIBLE PEDESTRIAN SYSTEM BUTTONS WITH AAPS APC (CONTROLLER) IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS AND SECTION 623 OF THE CCA USS. PUSH BUTTON SIGNS SHALL BE R10-3E PER MUTCD, 2009 EDITION, WITH FULL MOUNTING BRACKETS, AS MODIFIED BY THE MANUFACTURER TO FIT ON A 9"X12" SIGN, AND SHALL BE PORCELAIN-ENAMELED METAL. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 10". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (1-4) LATEST EDITION. WHEN AN EXISTING SIGNAL WITH EXISTING AUDIBLE-TACILE PUSH BUTTONS IS MODIFIED, THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE AND MODEL OF ANY EXISTING EQUIPMENT SCHEDULED TO REMAIN, TO PROVIDE A FULLY FUNCTIONING SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL AND ANY REQUIRED HARNESSES, TO PROVIDE A FULLY FUNCTIONING SYSTEM.

12. THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.

13. MAST ARM R10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD. WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAST ARM R10-12F 'LEFT TURN YIELD ON FLASHING YELLOW ARROW" SIGN SHALL BE MOUNTED ADJACENT TO THE M-4 SIGNAL HEAD.

14. TRAFFIC SIGNAL CABINET SHALL BE A TYPE VIII CABINET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET. THE CABINET SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN ON THE DRAWINGS. THE TRAFFIC SIGNAL CONTROLLER CABINET, SHALL BE EQUIPPED WITH 16 LOAD BAY POSITIONS,SHALL BE A 48 DETECTOR CHANNEL R CABINET AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOOP DETECTION RACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL SLOTS THAT CAN ACCOMMODATE VIDEO DETECTION CARDS. THE CABINET SHALL CONTAIN A 764 OPTICOM PHASE SELECTOR IN A 760 RACK, WITH A 768 AUXILIARY INTERFACE PANEL MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES.

15. THE CONTRACTOR SHALL SUPPLY A MALFUNCTION MANAGEMENT UNIT (MMU) AND TRAFFIC SIGNAL CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE CONTROLLER SHALL BE A NAZTEC 980 ATC TS2 TYPE 2 NTCIP COMPLIANT SIGNAL CONTROLLER WITH INTSTALLED AND LICENSED APOGEE CONTROLLER SOFTWARE, LATEST VERSION, AND THE MMU SHALL BE A MODEL MMU-1600GE AS MANUFACTURED BY RENO A&E., OR APPROVED EQUAL. THE CONTRACTOR SHALL DELIVER THE CONTROLLER AND MMU TO, AND PICKUP THE CONTROLLER AT 2824 E. CHARLESTON BOULEVARD. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (229-6076) SEVEN DAYS PRIOR TO PICK UP. THE CITY, AT ITS DISCRETION, MAY PROVIDE A DIFFERENT MODEL OF MMU OR CONTROLLER FOR INITIAL TURN-ON, IN WHICH CASE CITY PERSONNEL WILL SWAP THE CONTROLLER OR MMU AFTER THE PROJECT IS ACCEPTED.

16. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.

17. ALL MAST ARMS TO BE HOT-DIP GALVANIZED BY THE MANUFACTURER THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.

18. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS AND TO SECTION 623 OF THE CCA USS. ALL PEDESTRIAN SIGNAL FACES SHALL PROVIDE 'WALKING PERSON", 'HAND", AND 'COUNTDOWN" MESSAGES AS PROVIDED BY DURALIGHT MODEL #JXM-400-VIEIL OR DIALIGHT MODEL #430-6479-001X, OR APPROVED EQUAL. THE 'COUNTDOWN" MESSAGE SHALL NOT FLASH. WHERE EXISTING SIGNALS ARE MODIFIED, THE CONTRACTOR SHALL VERIFY THAT LED PEDESTRIAN INDICATIONS FOR A SPECIFIC PHASE ARE OF THE SAME MANUFACTURE SO THAT THEY FUNCTION CORRECTLY, OR SHALL REPLACE ALL COUNTDOWN PEDESTRIAN INDICATIONS FOR THAT PHASE.

19. VIDEO DETECTION SYSTEMS WILL BE EITHER ITERIS EDGE 2 WITH EDGECONNECT PAK, (IP ADDRESSABLE); PEEK VIDEOTRAK IQ (WITH ETHERNET PORT); OR TRAFICON VIP WITH VIEWCOM (IP ADDRESSABLE). WHEN VIDEO DETECTION IS SPECIFIED ON THE TRAFFIC SIGNAL PLANS. ALL VIDEO DETECTION SYSTEMS WILL BE STAND ALONE SYSTEMS TO INCLUDE ALL NECESSARY EQUIPMENT TO PROGRAM THE VIDEO DETECTION SYSTEM. A PROGRAMMING "MOUSE", KEYPAD OR LAPTAOP COMPUTER (IF REQUIRED FOR PROGRAMMING THE VIDEO DETECTION SYSTEM) AND APPROPRIATE SOFTWARE WILL BE SUPPLIED WITH EACH VIDEO SYSTEM. PERSONAL COMPUTERS (PCS) MAY NOT BE SUBSTITUTED FOR LAPTOPS. A VIDEO MONITOR (COLOR FLAT SCREEN) 9" TO 13" WILL BE SUPPLIED WITH EACH VIDEO DETECTION SYSTEM. EACH VIDEO CAMERA WILL HAVE POWER AND VIDEO CABLE DIRECTLY FROM THE CABINET. COAXIAL CABLE WILL BE TYPE 8281 (SOLID CENTER CONDUCTOR). CAMERAS THAT USE A PREFABRICATED CABLE INTEGRATING POWER AND COAXIAL CABLE INTO A SINGLE WEATHERPROOF CONNECTOR ARE ACCEPTABLE. "BNC" ARE THE ONLY ACCEPTABLE TERMINATION OF COAXIAL CABLES. CAMERAS WILL BE MOUNTED PER MANUFACTURER'S RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. VIDEO CAMERAS SHALL BE COLOR AND SHALL BE MOUNTED ON A MINIMUM 6 FOOT RISER ON THE SIGNAL MAST ARM WITH EXTENSION BRACKETS (TYPE AB-0166-5-62 OR EQUIVALENT). THE LOCATION OF THE CAMERA ON THE MAST ARM SHALL BE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. A VIDEO FILTER (CX06-BNYC OR EQUIVALENT) WILL BE INSTALLED IN THE SIGNAL CABINET FOR EACH CAMERA VIDEO INPUT. VIDEO DETECTION PROCESSORS AND COMMUNICATIONS CARDS SHALL BE PROVIDED WITH THE LATEST VERSIONS OF THE MANUFACTURER'S SOFTWARE. THE CONTRACTOR SHALL AIM CAMERAS AND PROGRAM AND CONFIGURE THE VIDEO DETECTION PROCESSORS TO PROVIDE A FULLY FUNCTIONING SYSTEM.

20. WHERE NEW LOOPS WILL BE OVERLAID WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY RENO A & E OR NEVER-FAIL LOOP SYSTEMS, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL PAVEMENT LIFT. WHERE NEW LOOPS ARE INSTALLED THAT ARE NOT OVERLAID WITH NEW PAVEMENT, LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623 T.02.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOP LEAD-IN CABLE SHALL BE 6-PAIR 18 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS. ALL WIRING HARNESSES, RACK POSITIONS, AND LOOP LEAD-IN CABLE SHALL BE CLEARLY MARKED AS TO THE APPROPRIATE PHASE AND LETTER DESIGNATION TO WHICH IT BELONGS AS SHOWN ON THE TRAFFIC SIGNAL PLANS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

21. OPTICAL PREEMPTION UNITS WILL BE GLOBAL TRAFFIC TECHNOLOGIES (ENCODING CAPABLE), MODEL 764 OPTICOM PHASE SELECTOR INSTALLED IN A MODEL 760 RACK WITH A MODEL 768 AUXILIARY INTERFACE PANEL (AIP) MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES. OPTICAL SENSORS WILL BE MODEL 721 WITH ONE DETECTOR PER DIRECTION, UNLESS SHOWN OTHERWISE IN THE PLANS, AND WILL BE INTERFACED TO THE TRAFFIC SIGNAL CONTROLLER CABINET WITH M-138 CABLE. THE SOUTHBOUND OPTICOM DETECTOR SHALL BE WIRED TO INPUT PREEMPTS ON CHANNEL 1 IN THE PHASE SELECTOR, EASTBOUND ON CHANNEL 2, NORTHBOUND ON CHANNEL 3, AND WESTBOUND ON CHANNEL 4, UNLESS VARIATIONS ARE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. WHEN 764 PHASE SELECTORS ARE ADDED TO A CABINET WITHOUT A 768 AIP, THE CONTRACTOR SHALL INSTALL AND WIRE A NEW 768 AIP.

22. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.

23. INTERCONNECT CABLE SHALL BE AS SHOWN IN THE WIRE SCHEDULE.

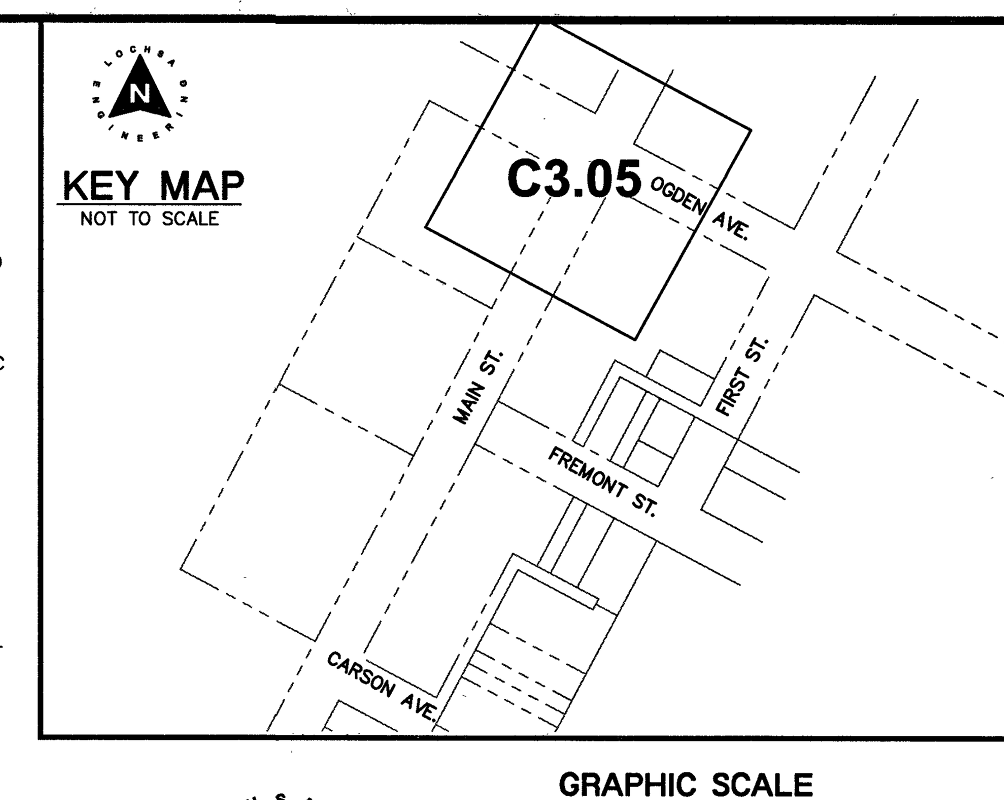
24. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.

25. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CONTACT KARL KELLEY, THE TRAFFIC SIGNAL SUPERVISOR, AT 702-229-4086 TO ARRANGE FOR DELIVERY TIMES AND LOCATIONS.

26. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623 G.03.01N OF THE CLV SPECIAL PROVISIONS.

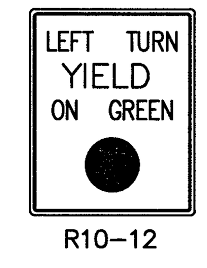
REVISED 10/28/15

KEY MAP
NOT TO SCALE

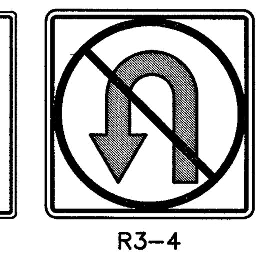


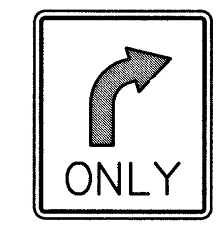
GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

TRAFFIC NOTES:
1. INSTALL OPTICOM DETECTOR
2. INSTALL R3-4 SIGN (36"X36")
3. ISNTALL R3-5R SIGN (30"X36")
4. RELOCATE EX. ILLUMINATED STREET NAME SIGN FROM POLE G TO POLE J.
5. INSTALL (4) 6'X6' DETECTOR LOOPS PER CCAUSD 833.

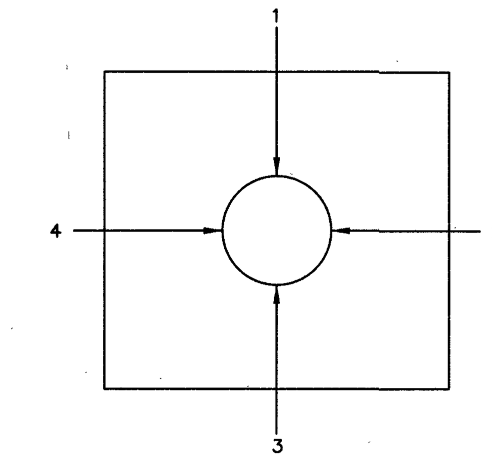


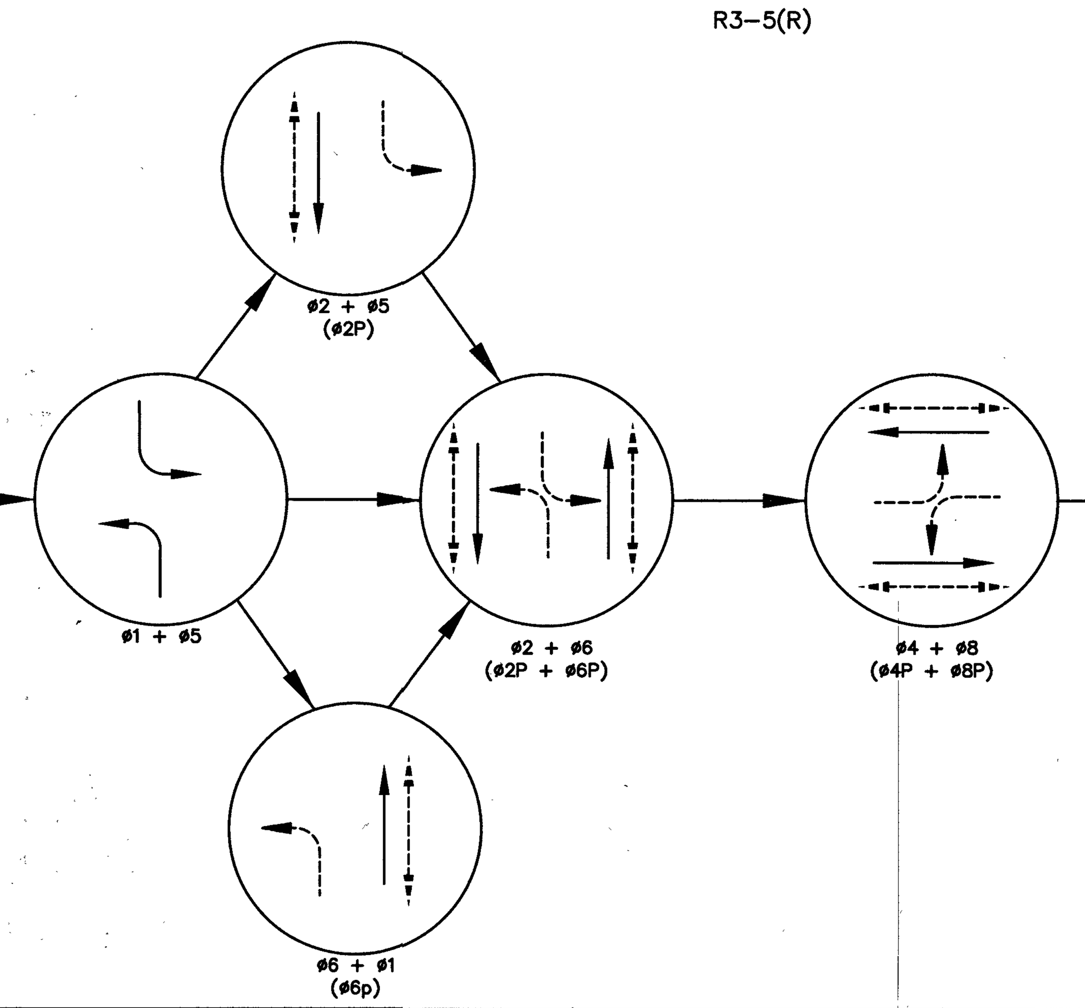
R10-12


R3-4



R3-5(R)





PHASE DIAGRAM
FLASHING OPERATION SHALL BE ALL RED

POLE SCHEDULE

POLE	TYPE OF FOUNDATION	LOCATION STATION	TYPE	SIG. ARM QUAD	SIG. ARM LNG	LUM. ARM QUAD	LUM. ARM LNG	SIGNALS (VEH.) TYPE	SIGNALS (VEH.) QUAD	SIGNALS (PEDESTRIAN) TYPE	SIGNALS (PEDESTRIAN) QUAD	PED. PUSH BUTTON QUAD	PED. PUSH BUTTON SIGN ARROW	REMARKS
A	H	EXISTING	XX	2	EX.	1 2	EX.	(1)M-5 (1)M-2 B-2T	EX.	W-0T	EX.	EX.	LT	EX. POLE
B	C	EXISTING	1-B	–	–	–	–	–	–	W-1T	EX.	EX.	RT	EX. POLE
C	H	EXISTING	XX	3	EX.	2 3	EX.	(2)M-2 B-14T	EX.	W-0T	EX.	EX.	LT	EX. POLE
D	C	EXISTING	1-B	–	–	–	–	–	–	W-1T	EX.	EX.	RT	EX. POLE
E	H	EXISTING	XX	4	EX.	3 4	EX.	(1)M-5 (1)M-2 B-2T	EX.	W-0T	EX.	EX.	LT	EX. POLE
F	C	EXISTING	1-B	–	–	–	–	–	–	W-1T	EX.	EX.	RT	EX. POLE
G	H	EXISTING	XX	1	EX.	1 4	EX.	(2)M-2 B-14T	EX.	W-0T	EX.	EX.	LT	EX. POLE REMOVED UPON ACTIVATION OF POLE J
H	C	EXISTING	1-B	–	–	–	–	–	–	W-1T	EX.	EX.	RT	EX. POLE
I	C	EXISTING	1-B	–	–	–	–	–	–	W-1T	TOP	2	LT	EX. POLE
J	L	STA: 10+54.77 OFF: 37.40' R	XX-A	1	40'	1 4	15' 15'	(2)M-2 (1)B14-T	MA 2	W-0T	3	4	LT	NEW POLE TO BE PAINTED PER CLV STANDARDS

NOTE:
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A.P.N.:
139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:
BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:
BENCHMARK 8LV0134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

SAFETY ALERT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY

Call Before You Overhead
1-702-227-2929

Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	
PROPERTY LINE	SAWCUT LINE	
ROW LINE	SCARP LINE	

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		S						BWV				
PROPOSED:	2122								12.34 BC		S						BWV				

MANHOLE DESCRIPTIONS
S = SANITARY SEWER
D = STORM DRAIN
E = ELECTRICAL
T = TELEPHONE

DESCRIPTION: | REV.: | DATE: | BY:

Lochsa engineering
6345 South Jones Blvd. Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

TRAFFIC CONTROL PLANS
TRAFFIC SIGNAL PLAN

18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1" = 20'
DRAWN BY:	JWN
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
GUY M. MORRIS
EXP. 12-31-19
CIVIL
No. 14526
04/08/19

SHEET No.
C3.04
SHEET 8 OF 15
CLV No. 107V7521
L18-02490

4/8/2019 5:29 PM
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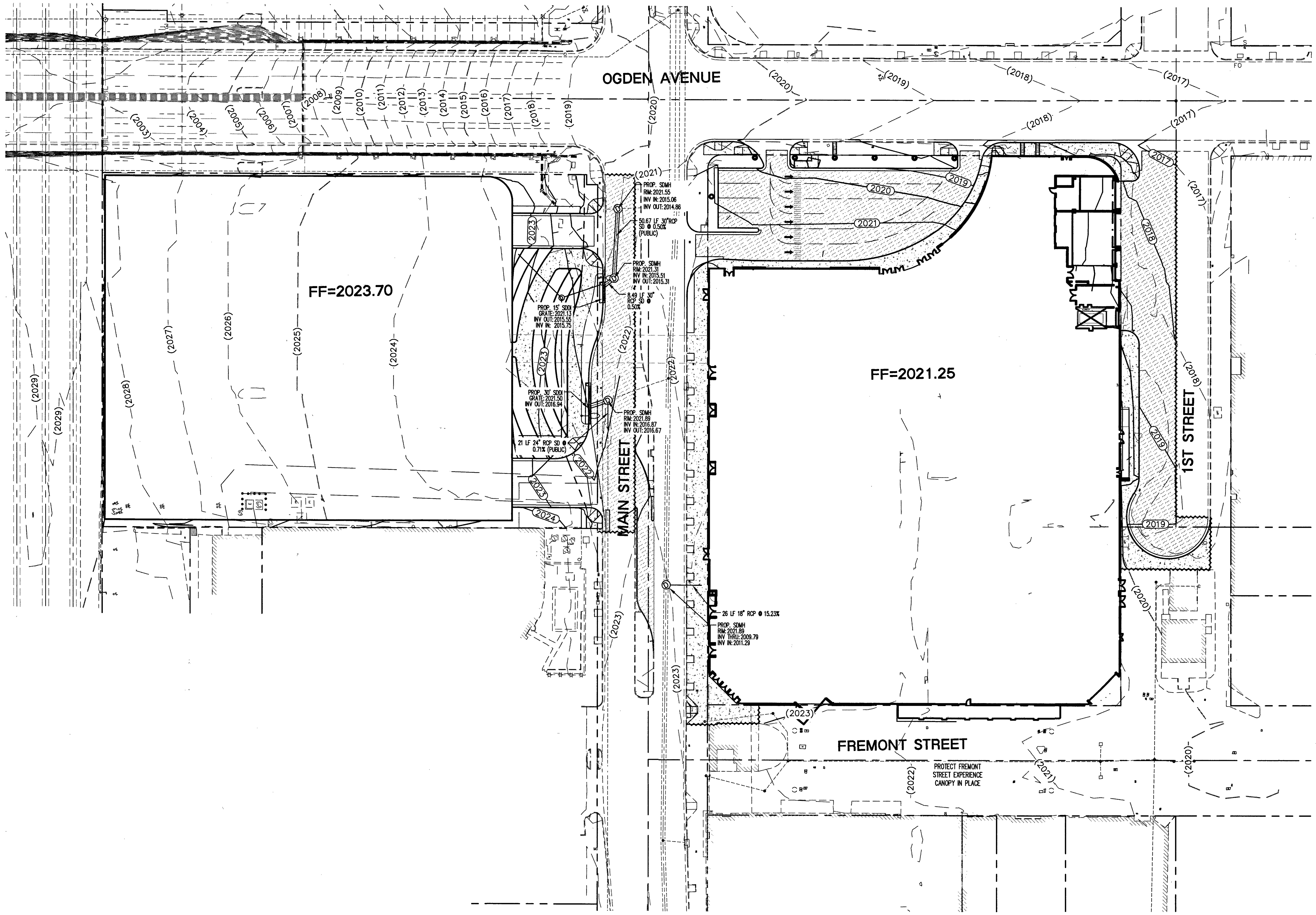

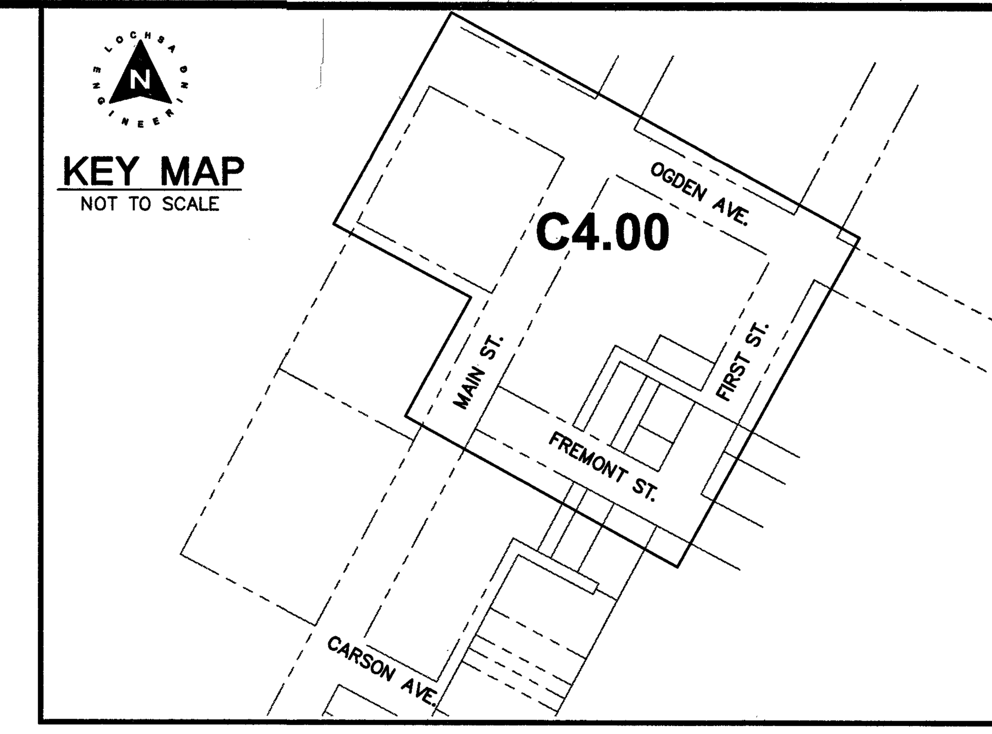

GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 inch = 40 ft.

STORMWATER MANAGEMENT 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 OF CLARK COUNTY 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 AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 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 A 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 SUSPENSION 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.

GRADING PLAN CERTIFICATION

NAME: GUY M. MORRIS PE # 14526 DATE 4-8-19

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

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A.P.N.:

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LEGEND

CL OR SURVEY LINE	EASEMENT LINE
PROPERTY LINE	SAWCUT LINE
ROW LINE	SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN						BWV				
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV				

Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

SHEET: GRADING PLANS
OVERALL SITE GRADING

TITLE: 18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1"=40'
DRAWN BY:	NMG
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA, GUY M. MORRIS, EXP. 12-31-19, CIVIL, No. 14526, 04/08/19

SHEET No. C4.00
SHEET 9 OF 15
CLV No. 107V7521
L18-02490

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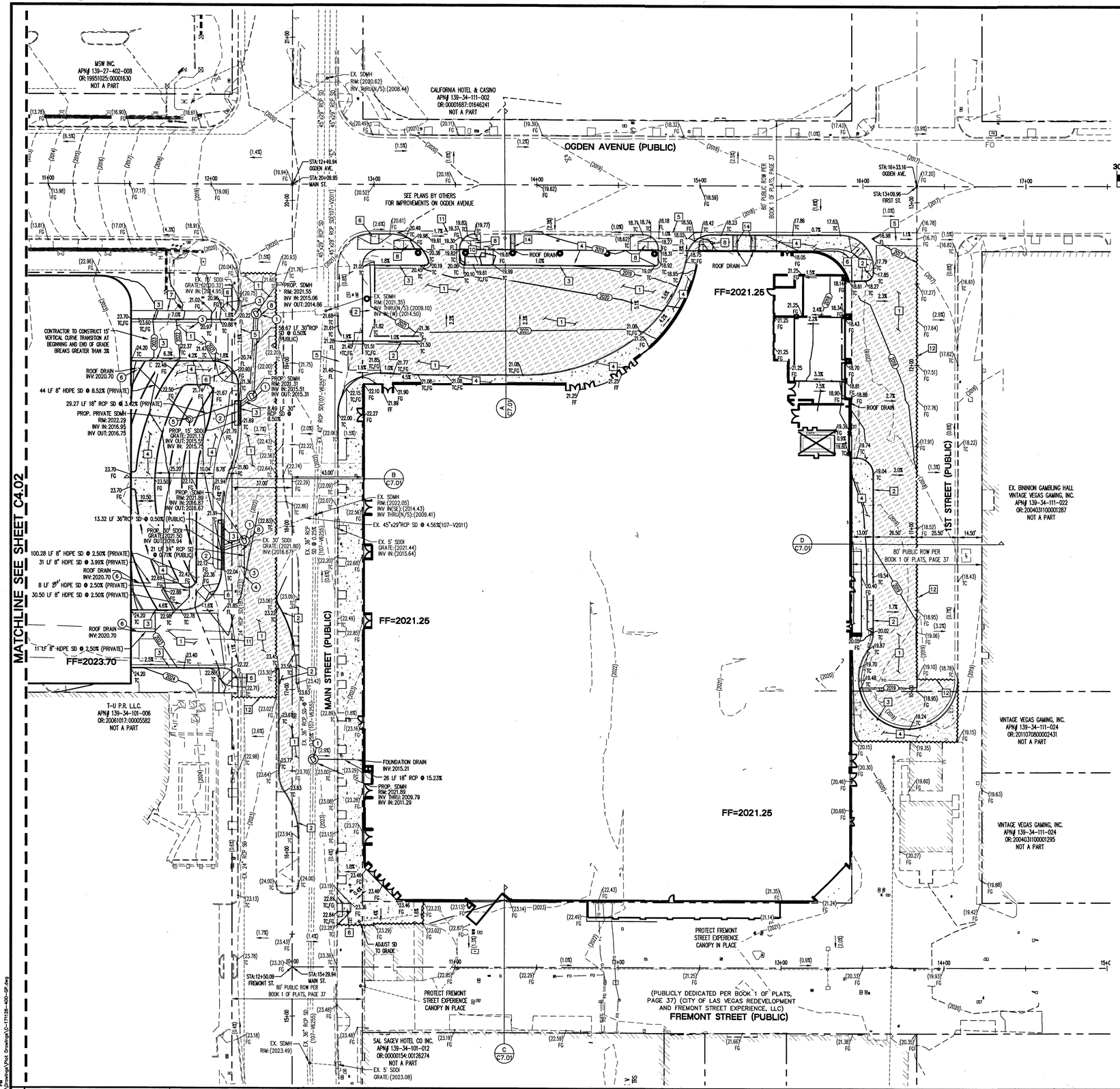

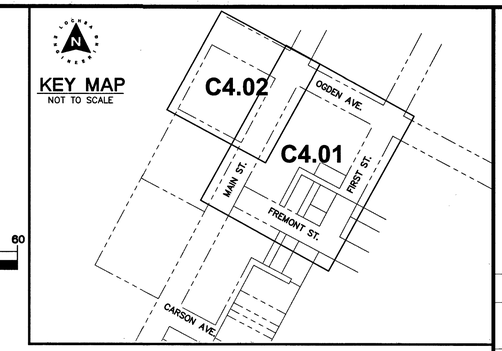

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

STORM DRAIN CONSTRUCTION NOTES:

– NOT ALL NOTES USED ON THIS SHEET –

1. INSTALL 72" STORM DRAIN MANHOLE PER C.C.A.U.S.D. NO. 403 WITH CONCRETE COLLAR PER CCAUSD #408. REFER TO C.C.A.U.S.D. NO. 409 FOR MANHOLE COVER AND RING.
2. INSTALL MODIFIED TYPE "C" DROP INLET WITH GRATE PER CCAUSD #412.1. INSTALL STAMP PER CCAUSD #421
3. REMOVE EXISTING INLET.
4. CONTRACTOR TO CONNECT EXISTING 24" RCP TO NEW MANHOLE AT SAME SLOPE. CONTRACTOR TO FIELD VERIFY THE EXISTING INVERT AND REPORT ANY ISSUES TO ENGINEERING.
5. INSTALL 48" STORM DRAIN MANHOLE PER C.C.A.U.S.D. NO. 403 WITH CONCRETE COLLAR PER CCAUSD #408. REFER TO C.C.A.U.S.D. NO. 409 FOR MANHOLE COVER AND RING.
6. CAP ROOF DRAIN. SEE PLUMBING PLANS FOR CONTINUATION.
7. EX. SIDEWALK UNDER DRAIN TO BE REMOVED SIDEWALK TO BE REMOVED BETWEEN JOINTS AND REPLACED..
8. CONNECT TO EX. STORM DRAIN.

TYPICAL GRADING AWAY FROM BUILDING

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (C.C.A.U.S.D.)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.

– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT AC PAVEMENT PER DETAIL 2 ON C7.01.
2. CONSTRUCT "A" TYPE CURB PER DETAIL 1 ON C7.01.
3. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
4. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234. REFER TO ARCH. PLANS FOR FINISHING SPECIFICATIONS.
5. CONSTRUCT CROSS GUTTER PER CCAUSD No. 228.
6. CONSTRUCT CASE II SIDEWALK RAMP PER CCAUSD No. 235.
7. INSTALL TURNED DOWN SIDEWALK EDGE WHERE NECESSARY PER DETAIL 3 ON C7.01 ALONG RAMP. INSTALL RAILING ALONG RAMP.
8. CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON C7.01.
9. NOT USED
10. CONSTRUCT SIDEWALK RAMP PER DETAIL 4 ON C7.01.
11. CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD No. 222.1 WITH CROSS GUTTER PER CCAUSD No. 228.
12. SAWCUT AND MATCH EXISTING.
13. CONSTRUCT 2' "U" CHANNEL PER DETAIL 6 ON C7.01.
14. INSTALL SIDEWALK DRAIN PER CCAUSD. No. 236. WITH 2' GRATE FOR ROOF DRAIN. PER DETAIL 8 ON C7.01

CUT	FILL
5264 CY	460 CY

NOTE: CUT/FILL QUANTITIES ARE TO FINISHED GRADE & DO NOT INCLUDE MATERIAL THICKNESS'S, FOOTINGS, ETC.

EXISTING UTILITY NOTE:

CONTRACTOR TO ADJUST ALL EXISTING UTILITIES TO MATCH PROPOSED FINISH GRADE ELEVATIONS.

FLOOD ZONE NOTE:

THE PROJECT SITE IS COVERED BY THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE CLARK COUNTY AND INCORPORATED AREAS, NEVADA, COMMUNITY PANEL NUMBER: 32003C2170F, EFFECTIVE DATE: NOVEMBER 16, 2011. THE SITE FALLS WITHIN ZONE 'X', DESCRIBED BY FEMA AS: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

GRADING NOTES:

1. SLOPES 4:1 OR STEEPER AND FINE-GRAINED MATERIALS THAT HAVE BEEN DISTURBED (SANDY AND SILTY MATERIALS) SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICATIONS OR THE SOILS REPORT.
2. CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXCAVATION QUANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOULD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL NOTIFY LOCHSA ENGINEERING WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. LOCHSA ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. NO PONDING ALLOWED. CONTRACTOR TO FOLLOW RECOMMENDATIONS AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING AND COMPACTION. REFER TO THE REPORT PREPARED BY GEOTECHNICAL & ENVIRONMENTAL SERVICES, PROJECT No. 20174217E1, DATED May 7, 2018.

GRADING PLAN CERTIFICATION

4-8-19

NAME: GUY M. MORRIS PE # 14526 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

SAFETY ALERT

Call Before You Overhead

1-702-227-2929

AVOID HITTING OVERHEAD POWER LINES, AND TRAFFIC LIGHT SYSTEM CONDUITS THAT ARE UNDERGROUND

Call before you UnderGround

1-702-432-5300

Call 811 OR 1-800-227-2600

Call before you dig
Avoid cutting underground utility lines. It's costly.

A.P.N.:
139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK BLVD134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
PROPERTY LINE	SAWCUT LINE	EXISTING:	—(2210)—								(12.34) BC			Ⓢ = SANITARY SEWER						BWV				
ROW LINE	SCARP LINE	PROPOSED:	2122								12.34 BC		Ⓢ	Ⓓ = STORM DRAIN Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV				

REV.:	DATE:	BY:	DESCRIPTION:

Lochsa engineering
8345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone: (702) 362-2022
Fax: (702) 385-9317
www.lochsa.com

SHEET: GRADING PLANS SHEET 1 OF 2

TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.: 171126

DATE: 04/08/19

SCALE: 1"=30'

DRAWN BY: NMG

DESIGNED BY: NMG

CHECKED BY: GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526

04/08/19

SHEET No. C4.01
SHEET 10 OF 15

CLV No. 107V7521

L18-02490

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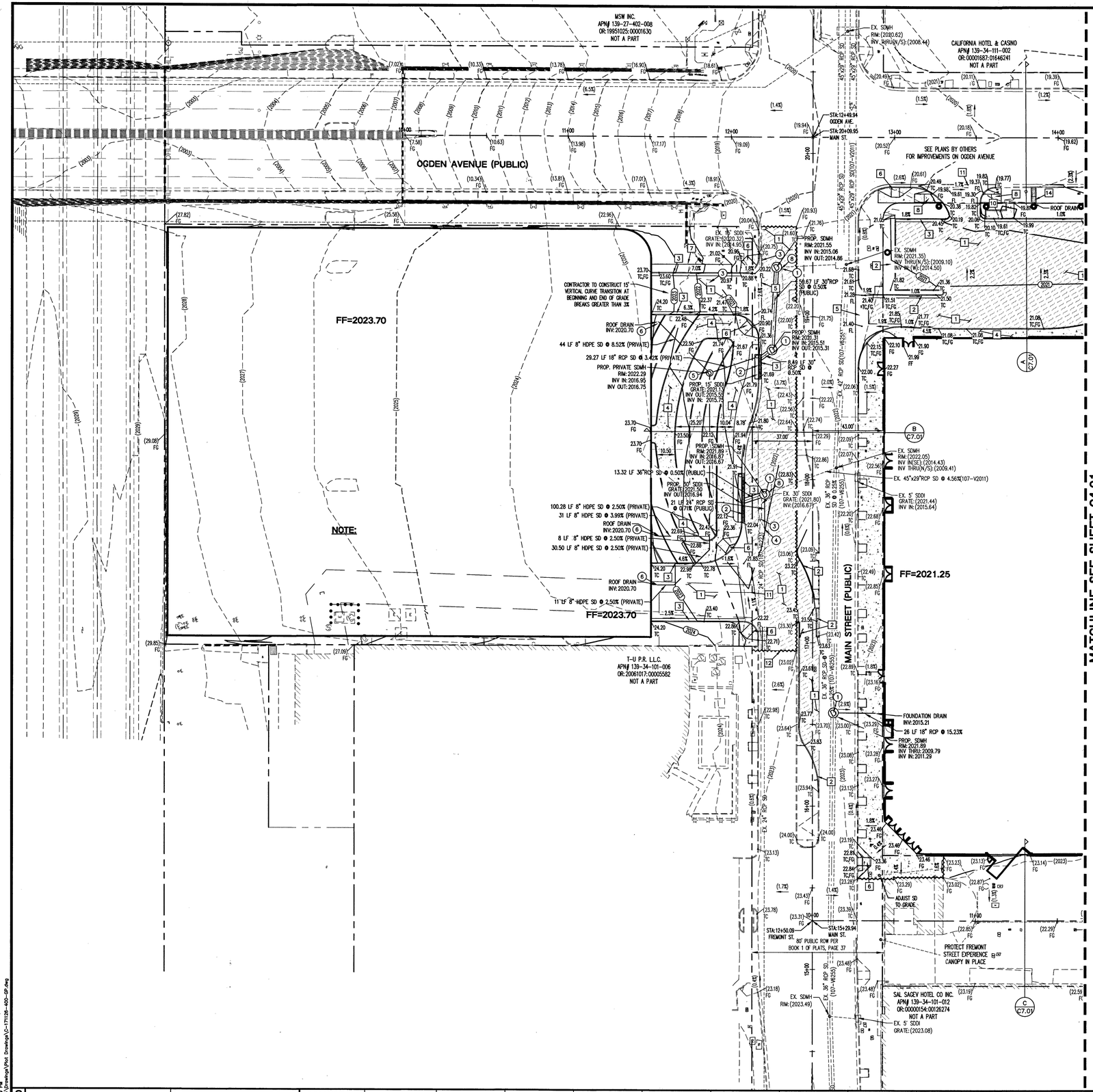

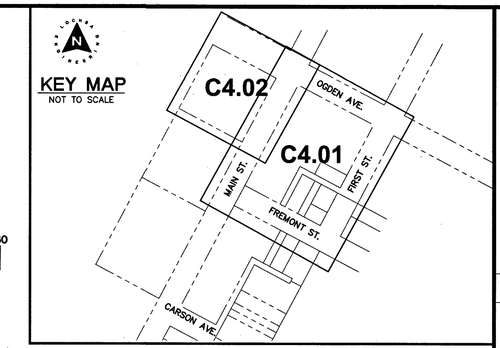

LOCHSA ON ENGINEERING

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 Inch = 30 ft.

STORM DRAIN CONSTRUCTION NOTES:

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TYPICAL GRADING AWAY FROM BUILDING

CONSTRUCTION NOTES:

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CUT	FILL
5254 CY	460 CY

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GRADING PLAN CERTIFICATION

4-8-19

NAME: GUY M. MORRIS PE # 14526 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

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Call 811

1-702-432-5300 or 1-702-227-2929 1-800-227-2600

A.P.N.:

139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK BLVD134NNW8 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

LEGEND																										
CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
PROPERTY LINE	SAWCUT LINE	EXISTING:	(2210)								(12.34) BC		(S)	(S) = SANITARY SEWER						BWV				
ROW LINE	SCARP LINE	PROPOSED:	2122								12.34 BC			(D) = STORM DRAIN (E) = ELECTRICAL (T) = TELEPHONE						BWV				

Lochsa engineering
6345 South Jones Blvd
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Las Vegas, NV 89118
Phone (702) 385-6312
Fax (702) 385-6317
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

SHEET: GRADING PLANS SHEET 2 OF 2

TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.: 171126

DATE: 04/08/19

SCALE: 1"=30'

DRAWN BY: NMG

DESIGNED BY: NMG

CHECKED BY: GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526

04/08/19

SHEET No. C4.02

SHEET 11 OF 15

CLV No. 107V7521

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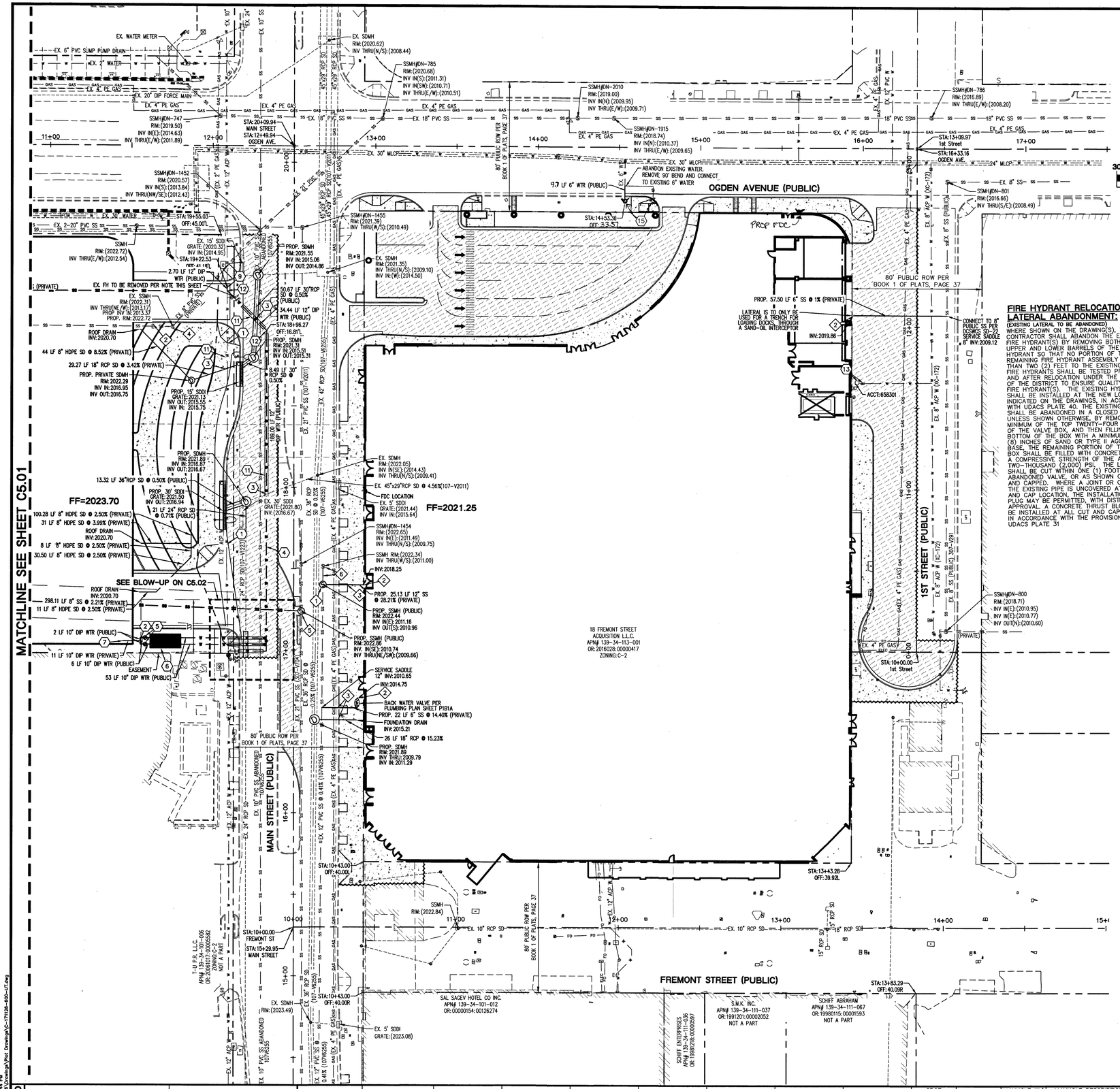

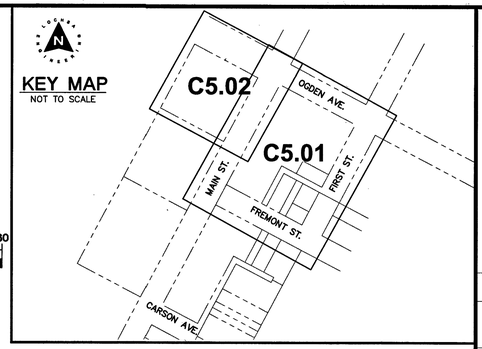

LOCHSA ENGINEERING

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 Inch = 30 ft.

FIRE FLOW CALCULATIONS

BASED ON BUILDING WITH HIGHEST DEMAND:

SQUARE FOOTAGE:	1,228,355
LARGEST AREA BETWEEN 4 HR. AREA SEPARATION WALLS:	N/A
BUILDING HEIGHT:	461'-0
NUMBER OF STORIES:	37 + BASEMENT
TYPE OF CONSTRUCTION:	I-A
OCCUPANCY:	A-2, A-4, B, F-1, F-2, M, S-1, S-2
SPRINKLER SYSTEM:	YES
EXPOSURES:	4
ROOF CONSTRUCTION:	STEEL DECKING
FLOW REQUIRED @ 20 PSI RESIDUAL (50% REDUCTION):	4500 GPM
MAX. STORAGE HEIGHT:	N/A
PRESSURE ZONE	2168

FIRE HYDRANT RELOCATION & LATERAL ABANDONMENT:

(EXISTING LATERAL TO BE ABANDONED)

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER BARRELS OF THE FIRE HYDRANT SO THAT NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN TWO (2) FEET TO THE EXISTING GRADE. FIRE HYDRANTS SHALL BE TESTED PRIOR TO AND AFTER RELOCATION UNDER THE DIRECTION OF THE DISTRICT TO ENSURE QUALITY OF THE FIRE HYDRANT(S). THE EXISTING HYDRANT SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24)INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF THE AT LEAST TWO-THOUSAND (2,000) PSI. THE LATERAL SHALL BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATION, THE INSTALLATION OF A PLUG MAY BE PERMITTED, WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CUT AND CAP LOCATION IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE 31

FIRE HYDRANT & LATERAL ABANDONMENT:

WHERE SHOWN ON THE DRAWING, THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER FIRE HYDRANT BARRELS SO NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN (2) FEET TO THE EXISTING GRADE. THE EXISTING HYDRANT SHALL BE DELIVERED TO THE AGENCY. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE AND BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF A LEAST TWO-THOUSAND (2,000) PSI. THE REMAINING PORTION OF THE LATERAL SHALL BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANT PAD SHALL BE REMOVED.

UTILITY NOTES:

EXISTING SITE UTILITIES HAVE BEEN SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO EXERCISE CAUTION DURING ALL EXCAVATION OPERATIONS TO AVOID IMPACT TO EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE TO ADJUST ALL EXISTING MANHOLES, CLEAN-OUTS, VAULTS, VALVES, BOXES AND ANY RELATED UTILITY IMPROVEMENTS ENCOUNTERED DURING CONSTRUCTION.

ALL WATER, SANITARY SEWER AND STORM DRAIN IMPROVEMENTS SHALL CONFORM TO THE LATEST VERSION OF UDACS, DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND APPLICABLE CITY STANDARDS AND GUIDELINES.

1. ALL ON-SITE WATER LINES 4" - 12" TO BE CL 150, C900 PVC. ALL ON-SITE WATER LINES GREATER THAN 12" TO BE D.I.P. ALL ON-SITE WATER LINES SMALLER THAN 4" TO BE COPPER.

2. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITY STUBS PRIOR TO CONSTRUCTION.

3. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WV, BOX, WMH, ANNODE BOX, FH, TEL BOX, ETC.)

4. ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.

EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

TREE'S, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT OF WAY.

SEWER CONSTRUCTION NOTES:

– NOT ALL NOTES USED ON THIS SHEET –

ALL GRAVITY SANITARY SEWER LINES TO BE SDR-35 PVC, UNLESS NOTED OTHERWISE.

1. INSTALL 60" SANITARY SEWER MANHOLE W/ SINGLE 24" LID PER DCSWCS DWG NO. SD-1A, SD-1B, & SD-4, AND CORROSION PROTECTION PER DCSWCS 3.16.8.B.
2. STUB & CAP SANITARY SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION. NO CLEANOUTS ALLOWED IN RIGHT OF WAY.
3. SAWCUT, TRENCH AND BACKFILL PER DCSWCS SD-16. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY.
4. MUST "CORE DRILL" EXMH PER DCSWCS SEC. 3.16.4. MUST INSTALL "CORROSION PROTECTION" IN EXMH PER DCSWCS SECT. 3.16.8 AND SEC. 4.9.9.
5. INSTALL 72" SANITARY SEWER MANHOLE W/ DUAL CONCENTRIC LIDS PER DCSWCS DWG NO. SD-1A, SD-1B, SD-2 & SD-4, AND CORROSION PROTECTION PER DCSWCS 3.16.8.B.
6. ABANDON SS MAIN PER DCSWCS 3.18.1B AND ABANDON SSMH PER DCSWCS 3.18.2A.
7. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS DWG NO. SD-1A, SD-1B, & SD-4.

A.P.N.:

139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK BLV013#NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

WATER CONSTRUCTION NOTES:

– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARD FOR WATER DISTRIBUTION SYSTEMS" (UDACS). – NOT ALL NOTES USED ON THIS SHEET –

1. EX. ACP WATER TO BE REMOVED BETWEEN CONNECTION POINTS,
2. INSTALL TEE W/THRUST BLOCK PER UDACS PLATE NO. 31 (SAME SIZE AS PIPE)
3. INSTALL UTILITY CROSSING PER UDACS SECTION 2.22.02.
4. TRENCH AND BACKFILL PER UDACS PLATE NO. 17. CONTRACTOR TO REPAIR CURB, GUTTER & SIDEWALK TO MATCH EXISTING TYPE & GRADE.
5. INSTALL GATE VALVE PER UDACS PLATE NO. 30 & 39.
6. INSTALL DUAL 8" METER AND 10" RPPA PER DETAIL 7 ON C7.01.
7. INSTALL CAP. SEE PLUMBING PLANS FOR CONTINUATION.
8. INSTALL FIRE HYDRANT PER UDACS PLATE NO. 40.
9. CONNECT TO EXISTING 12" ACP WATER.
10. INSTALL 90° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO.31.
11. INSTALL STEEL CASING PER UDACS PLATE NO. 23.
12. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO.31.
13. REMOVE EX. WATER METER PER UDACS SEC. 2.17.04.
14. INSTALL SLEEVE AND RECONNECT IRRIGATION.
15. RELOCATE EX. FH TO LOCATION SHOWN & ABANDON EX. LATERAL. SEE PLAN LOCATION & FH NOTE THIS SHEET.

NOTE:

CONTRACTOR TO INCLUDE COST OF UNDERGROUND UTILITY DETECTION COMPANY TO LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION OR EXCAVATION. ENGINEER TO BE PROVIDED WITH AS-BUILT SKETCH OF EXISTING UTILITIES, AND IS TO BE NOTIFIED IMMEDIATELY OF ANY POTENTIAL CONFLICTS WITH PROPOSED UTILITIES AND/OR FINISHED GRADES.

SOUTHWEST GAS CORPORATION
Pamela Kennedy 4-2-19
SOUTHWEST GAS CORPORATION DATE

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: [signature] DATE: 5-2-19

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 4500 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135386 FIRST APPROVED DATE: 5-6-19
LVVWD APPROVED FIRE FLOW 4500 GPM/ONSITE 4500 GPM

NOTE:

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

SAFETY ALERT
Call Before You Overhead
1-702-227-2929
Call before you UnderGround
Call 811
Call before you dig
Avoid cutting underground utility lines. It's costly.
1-702-432-5300
1-800-227-2600

6345 South Jones Blvd.
Las Vegas, NV 89118
Phone (702) 365-6312
Fax (702) 365-6317
www.LOCHSA.com

REV.:	DATE:	BY:	DESCRIPTION:

UTILITY PLANS
SHEET 1 OF 2
PRO.#:135386A QS:139-34-NW
18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1"=30'
DRAWN BY:	JWN
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL: PROFESSIONAL ENGINEER – STATE OF NEVADA – GUY M. MORRIS – EXP. 12-31-19 – CIVIL – No. 14526

04/08/19

SHEET No.
C5.01
SHEET 12 OF 15

CLV No. 107V7521
L18-02490

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
PROPERTY LINE	SAWCUT LINE	EXISTING:	(2210)								(12.34) BC		(S)	(S) = SANITARY SEWER						BWV				
ROW LINE	SCARP LINE	PROPOSED:	2122								12.34 BC			(D) = STORM DRAIN (E) = ELECTRICAL (T) = TELEPHONE						BWV				

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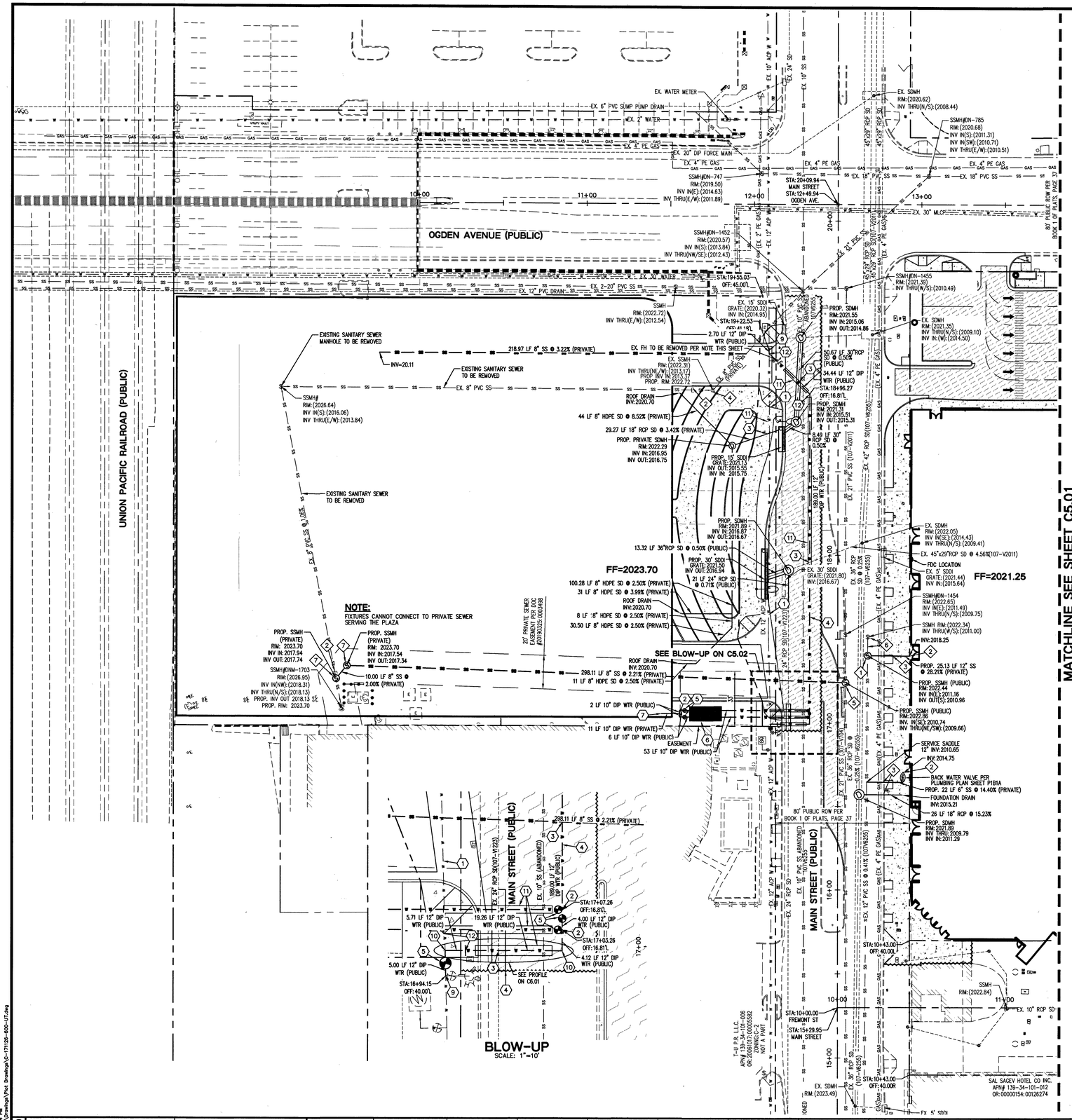

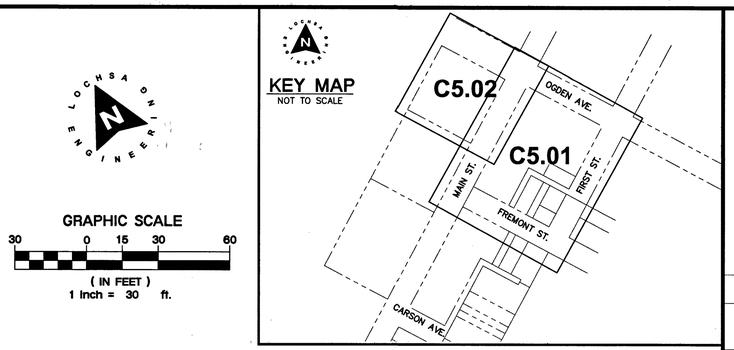

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

FIRE FLOW CALCULATIONS

BASED ON BUILDING WITH HIGHEST DEMAND:

SQUARE FOOTAGE:	1,228,355
LARGEST AREA BETWEEN 4 HR. AREA SEPARATION WALLS:	N/A
BUILDING HEIGHT:	461'-0
NUMBER OF STORIES:	37 + BASEMENT
TYPE OF CONSTRUCTION:	I-A
OCCUPANCY:	A-2, A-4, B, F-1, F-2, M, S-1, S-2
SPRINKLER SYSTEM:	YES
EXPOSURES:	4
ROOF CONSTRUCTION:	STEEL DECKING
FLOW REQUIRED @ 20 PSI RESIDUAL (50% REDUCTION):	4500 GPM
MAX. STORAGE HEIGHT:	N/A
PRESSURE ZONE	2168

FIRE HYDRANT & LATERAL ABANDONMENT:

WHERE SHOWN ON THE DRAWING, THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER FIRE HYDRANT BARRELS SO NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN (2) FEET TO THE EXISTING GRADE. THE EXISTING HYDRANT SHALL BE DELIVERED TO THE AGENCY. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION UNLESS SHOWN OTHERWISE. BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE AND BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF A LEAST TWO-THOUSAND (2,000) PSI. THE REMAINING PORTION OF THE LATERAL SHALL BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANT PAD SHALL BE REMOVED.

UTILITY NOTES:

EXISTING SITE UTILITIES HAVE BEEN SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO EXERCISE CAUTION DURING ALL EXCAVATION OPERATIONS TO AVOID IMPACT TO EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE TO ADJUST ALL EXISTING MANHOLES, CLEAN-OUTS, VAULTS, VALVES, BOXES AND ANY RELATED UTILITY IMPROVEMENTS ENCOUNTERED DURING CONSTRUCTION.

ALL WATER, SANITARY SEWER AND STORM DRAIN IMPROVEMENTS SHALL CONFORM TO THE LATEST VERSION OF UDACS, DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND APPLICABLE CITY STANDARDS AND GUIDELINES.

1. ALL ON-SITE WATER LINES 4" – 12" TO BE CL. 150, C900 PVC. ALL ON-SITE WATER LINES GREATER THAN 12" TO BE D.I.P. ALL ON-SITE WATER LINES SMALLER THAN 4" TO BE COPPER.

2. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITY STUBS PRIOR TO CONSTRUCTION.

3. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WV, BOX, WMH, ANNODE BOX, FH, TEL BOX, ETC.)

4. ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.

EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

TREE'S, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT OF WAY.

SEWER CONSTRUCTION NOTES:

– NOT ALL NOTES USED ON THIS SHEET –

ALL GRAVITY SANITARY SEWER LINES TO BE SDR-35 PVC, UNLESS NOTED OTHERWISE.

1. INSTALL 60" SANITARY SEWER MANHOLE W/ SINGLE 24" LID PER DCSWCS DWG NO. SD-1A, SD-1B, & SD-4, AND CORROSION PROTECTION PER DCSWCS 3.16.8.B.
2. STUB & CAP SANITARY SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION. NO CLEANOUTS ALLOWED IN RIGHT OF WAY.
3. SAWCUT, TRENCH AND BACKFILL PER DCSWCS SD-16. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY.
4. MUST "CORE DRILL" EXMH PER DCSWCS SEC. 3.16.4. MUST INSTALL "CORROSION PROTECTION" IN EXMH PER DCSWCS SECT. 3.16.8 AND SEC. 4.9.9.
5. INSTALL 72" SANITARY SEWER MANHOLE W/ DUAL CONCENTRIC LIDS PER DCSWCS DWG NO. SD-1A, SD-1B, SD-2 & SD-4, AND CORROSION PROTECTION PER DCSWCS 3.16.8.B.
6. ABANDON SS MAIN PER DCSWCS 3.18.1B AND ABANDON SSMH PER DCSWCS 3.18.2A.
7. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS DWG NO. SD-1A, SD-1B, & SD-4.

WATER CONSTRUCTION NOTES:

– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARD FOR WATER DISTRIBUTION SYSTEMS" (UDACS). – NOT ALL NOTES USED ON THIS SHEET –

1. EX. ACP WATER TO BE REMOVED BETWEEN CONNECTION POINTS.
2. INSTALL TEE W/THRUST BLOCK PER UDACS PLATE NO. 31 (SAME SIZE AS PIPE)
3. INSTALL UTILITY CROSSING PER UDACS SECTION 2.22.02.
4. TRENCH AND BACKFILL PER UDACS PLATE NO. 17. CONTRACTOR TO REPAIR CURB, GUTTER & SIDEWALK TO MATCH EXISTING TYPE & GRADE.
5. INSTALL GATE VALVE PER UDACS PLATE NO. 30 & 39.
6. INSTALL DUAL 8" METER AND 10" RPPA PER DETAIL 7 ON C7.01.
7. INSTALL CAP. SEE PLUMBING PLANS FOR CONTINUATION.
8. INSTALL FIRE HYDRANT PER UDACS PLATE NO. 40.
9. CONNECT TO EXISTING 12" ACP WATER.
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11. INSTALL STEEL CASING PER UDACS PLATE NO. 23.
12. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO.31.
13. REMOVE EX. WATER METER PER UDACS SEC. 2.17.04.
14. INSTALL SLEEVE AND RECONNECT IRRIGATION.

NOTE:

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SOUTHWEST GAS CORPORATION
SOUTHWEST GAS CORPORATION — DATE

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: — DATE: 5-2-19

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 4500 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135386 FIRST APPROVED DATE: 5-6-19
LVVWD APPROVED FIRE FLOW 4500 GPM/ONSITE 4500 GPM

NOTE:

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

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SAFETY ALERT
Call Before You Overhead
AVOID HITTING OVERHEAD POWER LINES WITH TRUCKS, EQUIPMENT AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
Call before you UnderGround
Call 811 or
1-702-432-5300
1-702-227-2929 1-800-227-2600

Call before you dig
Avoid cutting underground utility lines. It's costly.

A.P.N.:
139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK: BLVD134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

LEGEND			DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
CL OR SURVEY LINE	EASEMENT LINE		EXISTING:	(2210)								(12.34)		S	S = SANITARY SEWER						BWV				
PROPERTY LINE	SAWCUT LINE		PROPOSED:	2122								12.34 BC		D	D = STORM DRAIN						BWV				
ROW LINE	SCARP LINE													E	E = ELECTRICAL						BWV				
														T	T = TELEPHONE						BWV				

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Lochsa engineering
6345 South Jones Blvd. Suite 100
Las Vegas, NV 89118
(702) 382-1170
Fax (702) 382-5372
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

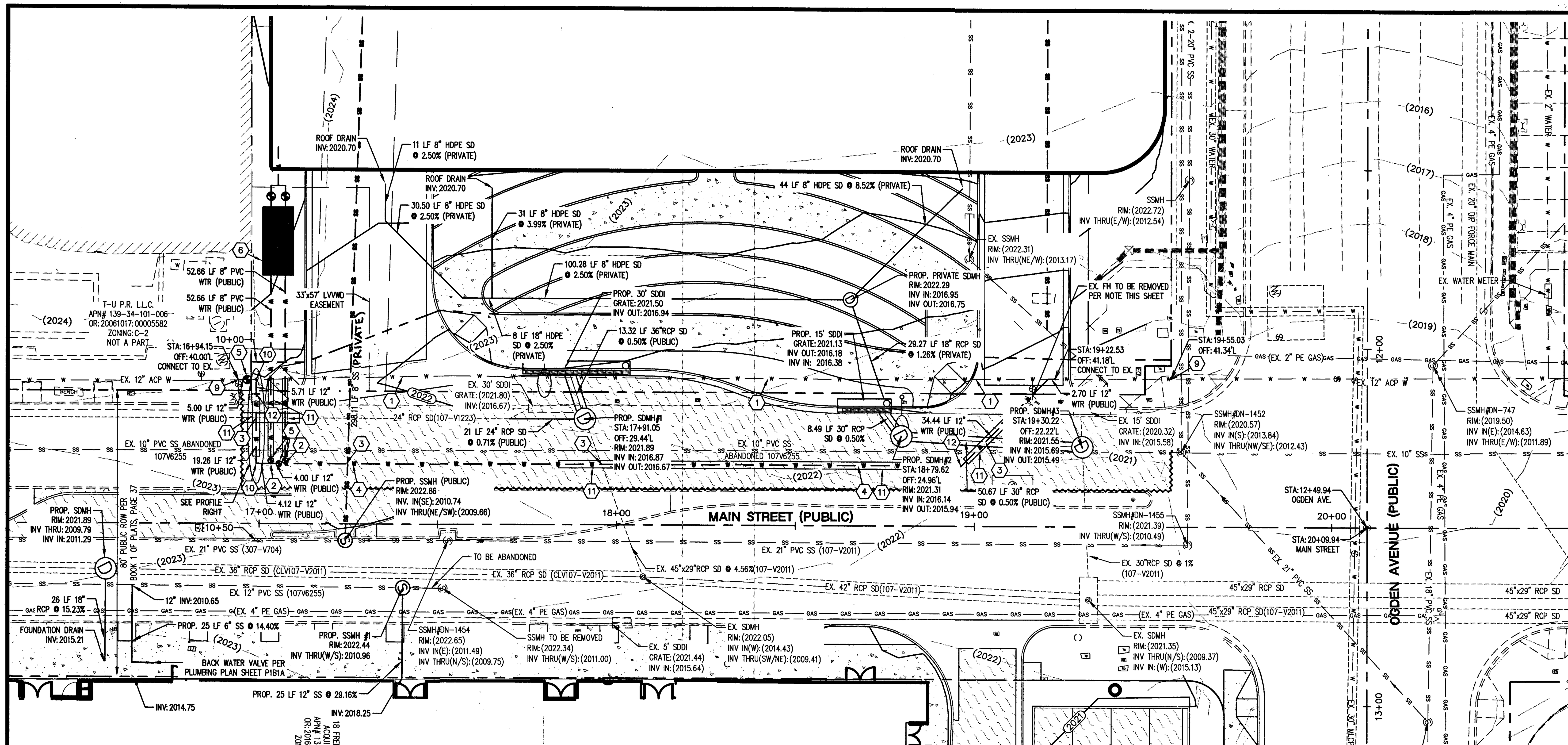
SHEET TITLE: UTILITY PLANS SHEET 2 OF 2
PROJ.#:135386A QS:139-34-NW

18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

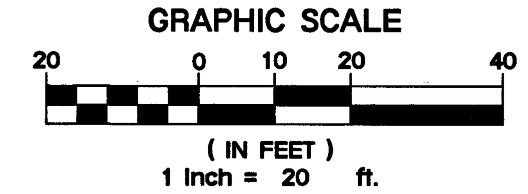
PROJECT No.: 171126
DATE: 04/08/19
SCALE: 1"=30'
DRAWN BY: JWN
DESIGNED BY: NMG
CHECKED BY: GMM

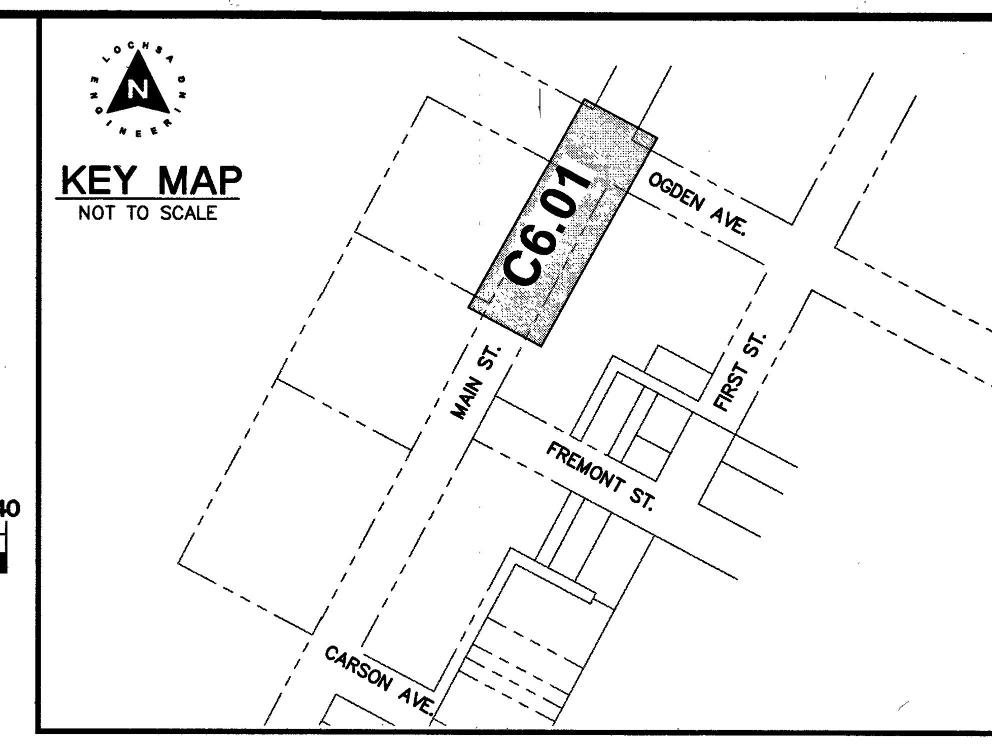
SCALE: 1" = 30'
PROFESSIONAL ENGINEER — STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526
04/08/19

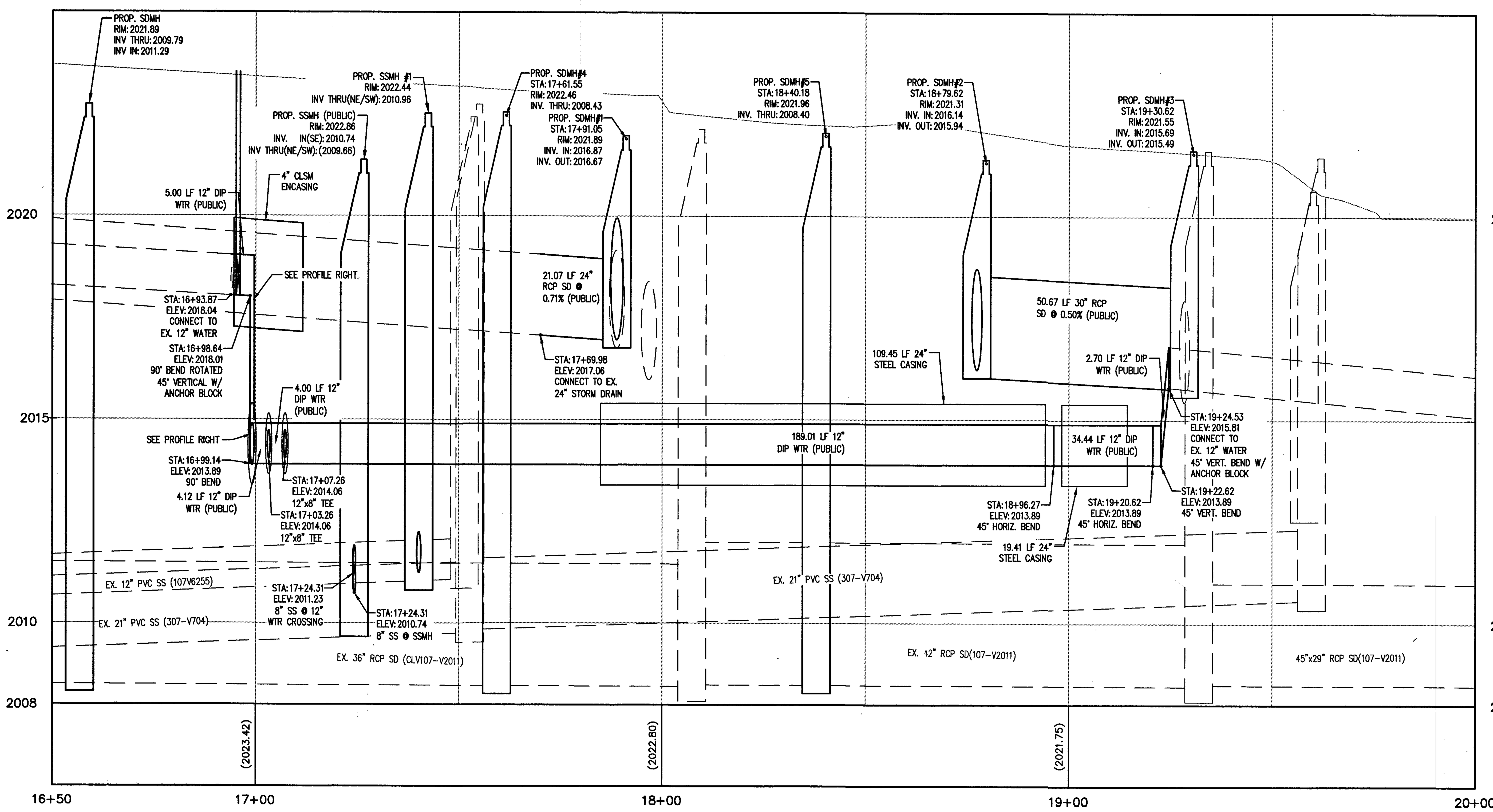
SHEET No.
C5.02
SHEET 13 OF 15
CLV No. 107V7521
L18-02490



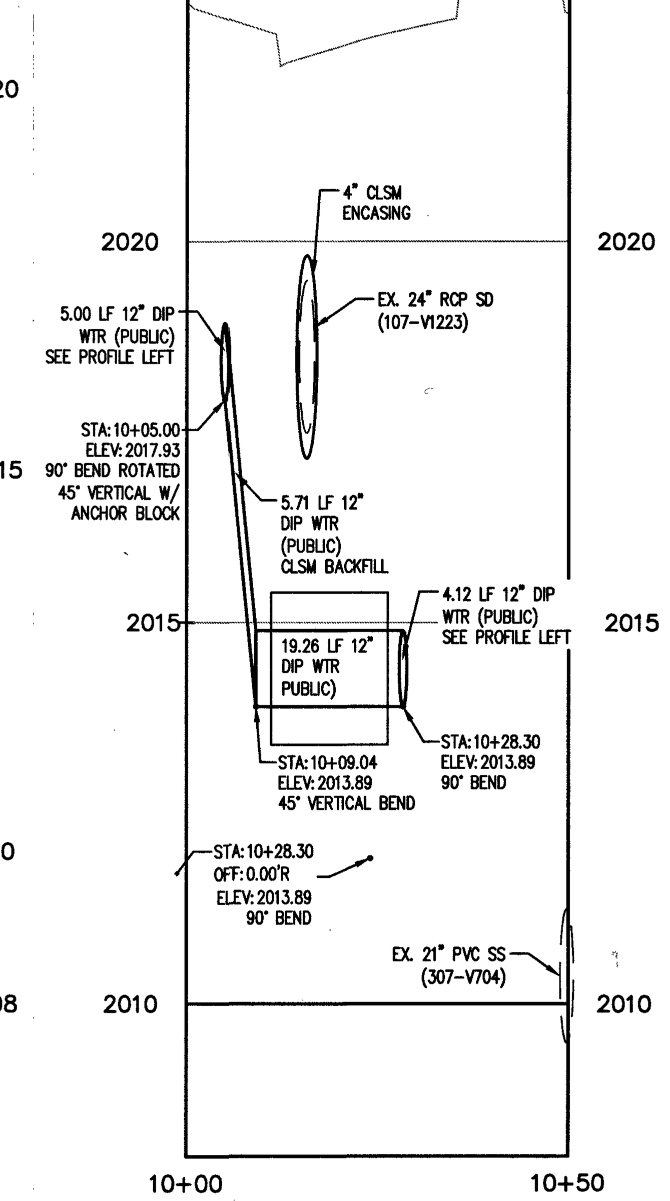
GRAPHIC SCALE







MAIN STREET PROFILE VIEW
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



water PROFILE VIEW
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

WATER CONSTRUCTION NOTES:

– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARD FOR WATER DISTRIBUTION SYSTEMS" (UDACS). – NOT ALL NOTES USED ON THIS SHEET –

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12. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO.31.
13. REMOVE EX. WATER METER PER UDACS SEC. 2.17.04.

FIRE HYDRANT & LATERAL ABANDONMENT:

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1. ALL ON-SITE WATER LINES 4" – 12" TO BE CL. 150, C900 PVC. ALL ON-SITE WATER LINES GREATER THAN 12" TO BE D.I.P. ALL ON-SITE WATER LINES SMALLER THAN 4" TO BE COPPER.
2. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITY STUBS PRIOR TO CONSTRUCTION.
3. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WV, BOX, WMH, ANNODE BOX, FH, TEL BOX, ETC.)
4. ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.

EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

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NOTE:

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

SOUTHWEST GAS CORPORATION

Pamela Kennedy 4-22-19
SOUTHWEST GAS CORPORATION DATE

NOTE:

CONTRACTOR TO INCLUDE COST OF UNDERGROUND UTILITY DETECTION COMPANY TO LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION OR EXCAVATION. ENGINEER TO BE PROVIDED WITH AS-BUILT SKETCH OF EXISTING UTILITIES, AND IS TO BE NOTIFIED IMMEDIATELY OF ANY POTENTIAL CONFLICTS WITH PROPOSED UTILITIES AND/OR FINISHED GRADES.

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: [signature] DATE: 5-2-19

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 4500 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135386 FIRST APPROVED DATE: 5-6-19
LVVWD APPROVED FIRE FLOW 4500 GPM/ONSITE 4500 GPM

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

A.P.N.:

139-34-113-001 & 139-34-112-001

BASIS OF BEARINGS:

BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF OGDEN AVENUE BETWEEN MAIN STREET AND FIRST STREET, AS SHOWN ON FILE 67, PAGE 79 OF SURVEYS. SAID LINE BEARS: S62°04'36"E

BENCHMARK:

BENCHMARK 8LV0134NNW6 BEING A RIVET & PLATE TOP CURB NE CORNER MAIN ST. & FREMONT ST. ELEVATION=2023.19 FEET (616.669 METERS)

SAFETY ALERT
Call Before You Overhead 1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call before you UnderGround 1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION 1-800-227-2600
Call before you dig Avoid cutting underground utility lines. It's costly.
Call 811 OR

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS	200w HPS STREETLIGHTS	250w HPS STREETLIGHTS
PROPERTY LINE	SAWCUT LINE	EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN						BWV				
ROW LINE	SCARP LINE	PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV				

Lochsa engineering
6345 South Jones Blvd. Suite 100 Las Vegas, NV 89118 Phone (702) 365-9312 Fax (702) 365-9317 www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

SHEET: PLAN AND PROFILE MAIN STREET

PROJ#:135386A QS:139-34-NW

TITLE: 18 FREMONT STREET HOTEL AND CASINO CITY OF LAS VEGAS

PROJECT No.:	171126
DATE:	04/08/19
SCALE:	1"=20'
DRAWN BY:	NMG
DESIGNED BY:	NMG
CHECKED BY:	GMM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA, GUY M. MORRIS, EXP. 12-31-19, CIVIL, No. 14526, 04/08/19

SHEET No. C6.01
SHEET 14 OF 15

CLV No. 107V7521
L18-02490

4/18/2019 4:44 PM
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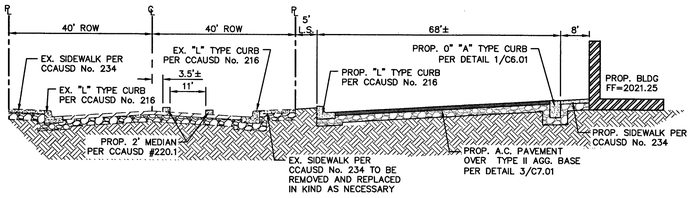
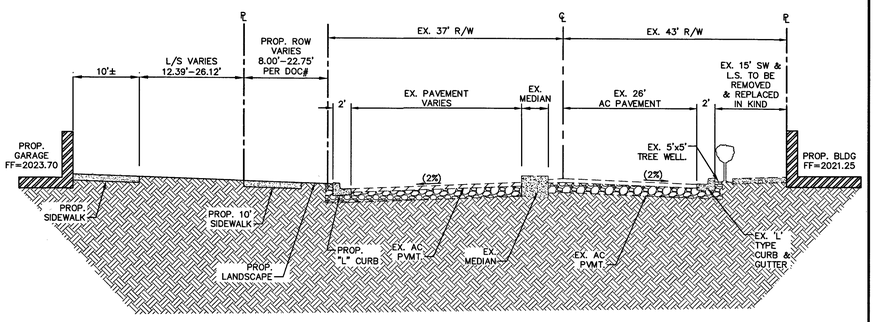


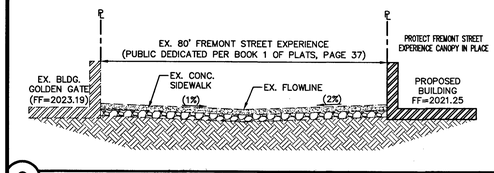
A OGDEN AVENUE SECTION

NOT TO SCALE

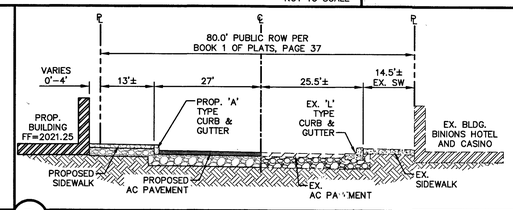


B MAIN STREET SECTION

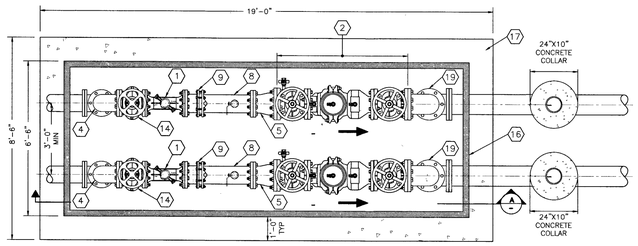
NOT TO SCALE



C FREMONT STREET LINE SECTION

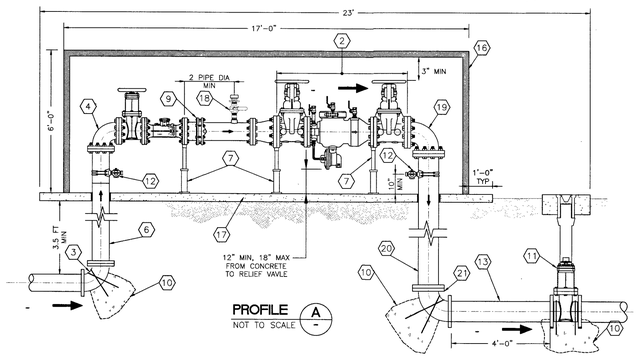


D 1ST STREET SECTION



PLAN VIEW OF 8" METER ASSEMBLY WITH 10" RPPA

NOT TO SCALE



PROFILE (A)

NOT TO SCALE

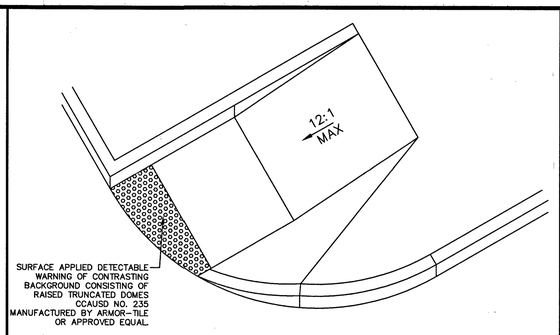
MATERIAL LIST

1. 8" WATER METER (OCTAVE-ULTRASONIC)
2. APPROVED IN LINE 10" REDUCED PRESSURE PRINCIPLE ASSEMBLY RPPA (WITH NRS VALVES)
3. 8" PO X MJ RESTRAINT 90° BEND
4. 8" FLG X FLG 90° BEND
5. 10" X 8" FLG X FLG REDUCER
6. 8" FLG X PE DIP (CUT AS REQUIRED)
7. ADJUSTABLE PIPE SUPPORTS
8. 8" FLG X PE DIP SPOOL WITH 2" TEST PORT
9. 8" RFCA RESTRAINED FLANGED COUPLING ADAPTER
10. CONCRETE THRUST/ANCHOR BLOCK
11. PO X PO GATE VALVE TO MATCH PIPE SIZE
12. 2" SERVICE SADDLE AND 2" N.P.T. CORP STOP W/ BRASS CAP (BYPASS TO BE INSTALLED 45° OFFSET FROM FLOW)
13. 10" PE X PE PIPE SPOOL
14. FLG X FLG NRS GATE VALVE
15. NOT USED
16. INSULATED ENCLOSURE
17. CONCRETE PAD (4" THICK) WITH WELDED WIRE FABRIC, 4 x 4 – W1.4 x W1.4
18. 2" BALL VALVE WITH BRASS FIRE HOSE DOUBLE MALE NIPPLE 2" NPT X 2.5" NH ADAPTER AND BRASS CAP
19. 10" FLG X FLG 90° BEND
20. 10" FLG X PE DIP (CUT AS REQUIRED)
21. 10" PO X MJ RESTRAINT 90° BEND

DIMENSION NOTES:

1. IF RPPA MODEL "WATTS LF909" IS USED, THE LENGTH OF THE ASSEMBLY GOES FROM 17FT TO 19FT, AND THE WIDTH GOES FROM 3.5FT TO 4FT

7

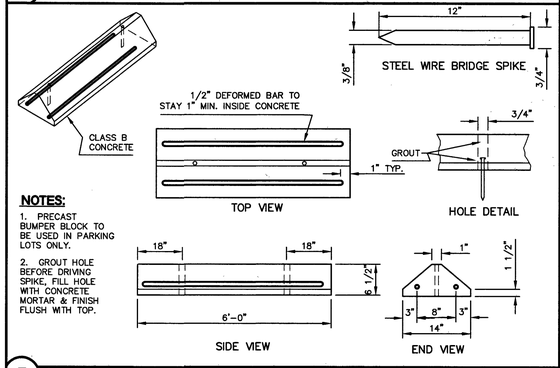


RAMP NOTES: (FOR ALL ACCESSIBLE ROUTE SLOPES GREATER THAN 1:20)

1. RAMP LENGTHS SHALL BE 6'-0" (72") MIN. FOR EACH 6" RISE
2. RAMP LANDINGS SHALL BE FLAT FOR A MINIMUM DISTANCE OF 5'-0"
3. RAMP CROSS SLOPES SHALL NOT TO EXCEED 1:48
4. RAMP SLOPES SHALL NOT TO EXCEED 1:12
5. HEIGHT OF CURBS (OR EDGES) SHALL NOT TO EXCEED 6".
6. RAMP CLEAR WIDTHS TO BE 3'-0" MINIMUM.
7. RAMP HEIGHTS ARE NOT INTENDED TO EXCEED 6" IN HT. PER EA. RUN.

9 ON-SITE RAMP

NOT TO SCALE

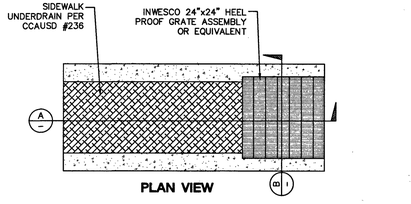


NOTES:

1. PRECAST BUMPER BLOCK TO BE USED IN PARKING LOTS ONLY.
2. GROUT HOLE BEFORE DRIVING SPIKE, FILL HOLE WITH CONCRETE MORTAR & FINISH FLUSH WITH TOP.

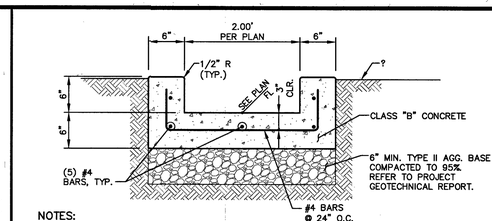
5 BUMPER BLOCK DETAIL

NOT TO SCALE



NOT TO SCALE

8 GRATE ASSEMBLY/SW UNDERDRAIN TRANSITION

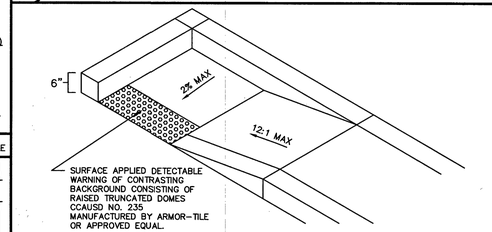


NOTES:

1. EXPANSION JOINTS REQUIRED AT ALL LOCATIONS WHERE CHANNEL MEETS CURB.
2. WEAKENED PLANE JOINTS REQUIRED AT 10' MAX. SPACING.
3. REFER TO PROJECT GEOTECHNICAL REPORT FOR TYPE II AGGREGATE OR SELECTED MATERIAL DEPTH AND COMPACTION, SUB-GRADE PREPARATION, MEMBRANES AND OTHER PLACEMENT RECOMMENDATIONS.

6 "U" CHANNEL

NOT TO SCALE



RAMP NOTES: (FOR ALL ACCESSIBLE ROUTE SLOPES GREATER THAN 1:20)

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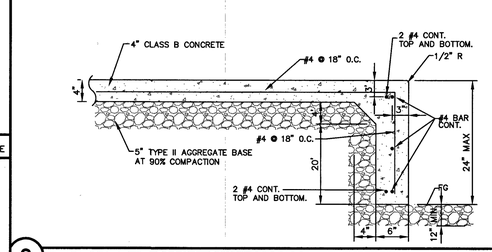
4. RAMP SLOPES SHALL NOT TO EXCEED 1:12
5. HEIGHT OF CURBS (OR EDGES) SHALL NOT TO EXCEED 6".
6. RAMP CLEAR WIDTHS TO BE 3'-0" MINIMUM.
7. RAMP HEIGHTS ARE NOT INTENDED TO EXCEED 6" IN HT. PER EA. RUN.
8. RAMP SHALL HAVE A BROOM FINISH.

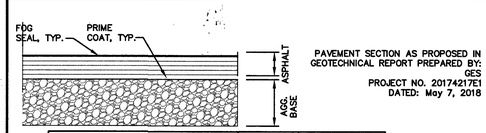
4 ON-SITE RAMP

NOT TO SCALE



3 TURNED DOWN SIDEWALK

NOT TO SCALE



PAVEMENT SECTION AS PROPOSED IN GEOTECHNICAL REPORT PREPARED BY: GES
PROJECT NO. 20174217E1
DATED: May 7, 2018

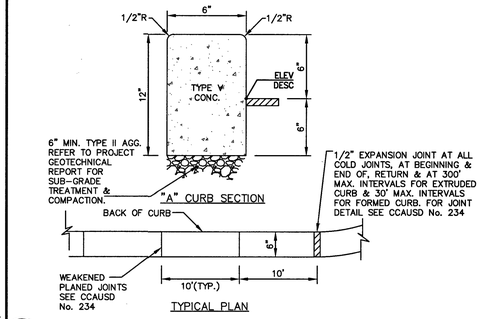
TYPE OF TRAFFIC	ASPHALT (inches)	TYPE II BASE COURSE (inches)
AUTOMOBILE PARKING	3	7
MAIN CORRIDORS & HEAVY DUTY TRUCK	3	10

REFER TO PROJECT GEOTECHNICAL REPORT FOR ALL SUB-GRADE PREPARATION & COMPACTION.

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT.

2 AC PAVEMENT SECTION

NOT TO SCALE



1 ON-SITE 'A' CURB

NOT TO SCALE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135386 FIRST APPROVED DATE: 5-6-19
LVVWD APPROVED FIRE FLOW 4500 GPM/ONSITE 4500 GPM

Lochsa engineering
6345 South Jones Blvd
Suite 100
Las Vegas, NV 89118
Phone (702) 385-3312
Fax (702) 385-9317
www.lochsa.com

REV.:	DATE:	BY:	DESCRIPTION:

DETAIL SHEETS
DETAIL SHEET

18 FREMONT STREET
HOTEL AND CASINO
CITY OF LAS VEGAS

SHEET
PRO.#:135386A QS:139-34-NW
TITLE

PROJECT No.: 171126
DATE: 04/08/19
SCALE: N/A
DRAWN BY: JWN
DESIGNED BY: NMG
CHECKED BY: GMM

SEAL: GUY M. MORRIS, EXP. 12-31-19, CIVIL, No 14526, STATE OF NEVADA, PROFESSIONAL ENGINEER
04/08/19

SHEET No. C7.01
SHEET 15 OF 16
CLV No. 107V7521
L18-02490

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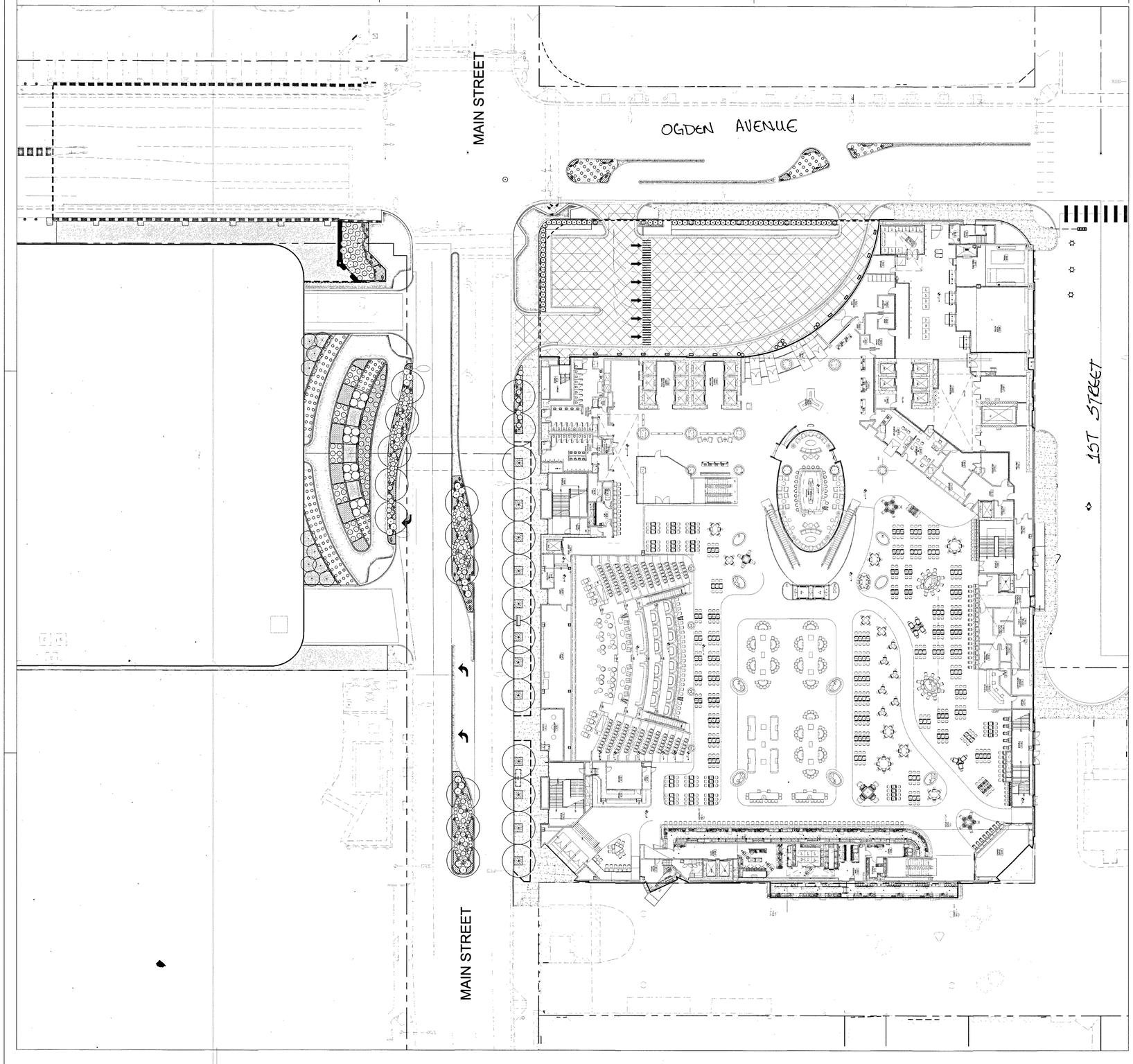

1 DRAWING REGISTRY
PLAN

SCALE 1"=30'-0"

NORTH

SCALE 1"=30'-0"
0 30 ft 60 ft 120 ft

04/08/2019 PERMIT SET	
Sheet Number	Sheet Title
L000	DRAWING REGISTRY
L001	HARDSCAPE NOTES
L002	HARDSCAPE NOTES
L003	LANDSCAPE NOTES
L005	LANDSCAPE NOTES
L100	SITE LAYOUT
L101	DETAILS
L102	DETAILS
L301	SITE LANDSCAPE ENLARGEMENT
L302	SITE LANDSCAPE ENLARGEMENT
L303	SITE LANDSCAPE ENLARGEMENT
L304	SITE LANDSCAPE ENLARGEMENT
L305	LANDSCAPE PALETTE & SCHEDULE
L306	LANDSCAPE PALETTE & SCHEDULE

Steelman Partners

ARCHITECTURE
INTERIOR DESIGN
LIGHTING DESIGN
MULTIMEDIA
GRAPHIC DESIGN
PRODUCT DESIGN

3330 West Desert Inn Road
Las Vegas, Nevada 89102
702-873-0221 t
702-367-3565 f
www.steelmanpartners.com

CONSULTANT:

SKS STUDIO

1925 Central St. Suite A
Kansas City, MO 64108
web: www.sks-studio.com
email: info@sksimms.com

SEAL:

REGISTERED LANDSCAPE ARCHITECT
SEAN SIMMS
850
Expired 1/30/19
STATE OF NEVADA

ARCHITECT
STEELMAN PARTNERS LLP

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REVISIONS:

NUMBER	DESCRIPTION	DATE
X1	SITE PERMIT	04/08/2019

SHEET TITLE:

DRAWING REGISTRY

JOB #: 20160058

ISSUED FOR:

ISSUE DATE: 04/08/2019

SCALE: PER VIEW

SHEET:

L000

10770521 LIB-02490

GENERAL HARDSCAPE CONDITIONS

1. THE HARDSCAPE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ADHERING TO ALL THE REQUIREMENTS STATED UNDER THE GENERAL REQUIREMENTS AND CONDITIONS AS WELL AS THE SPECIFIC CRITERIA OUTLINED HEREIN AND ON THE LANDSCAPE DRAWINGS.

2. THE SCOPE OF WORK FOR THE HARDSCAPE CONTRACTOR FOR THIS PROJECT SHALL INCLUDE THE PROVISION OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE ALL TASKS ASSOCIATED WITH THE HARDSCAPE (HS) INSTALLATION AS SHOWN ON THE DRAWINGS OR NOTED HEREIN. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR REASONABLE ACCESS TO POWER AND POTABLE WATER SOURCES AS REQUIRED.

3. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL WORK (INCLUDING DELIVERY, STORAGE AND DISPOSAL OF THEIR MATERIALS) IS PERFORMED IN COMPLIANCE WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THE WORK.

4. THE HARDSCAPE CONTRACTOR SHALL ASSIGN A QUALIFIED PROJECT MANAGER AND FIELD SUPERVISOR TO WORK DIRECTLY WITH THE LANDSCAPE ARCHITECT AND SUPERVISE THE WORK AT ALL TIMES THROUGH FINAL OWNER ACCEPTANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PROJECT MANAGER HAS A COMPLETE, CURRENT SET OF DOCUMENTS ON-SITE AT ALL TIMES.

5. THE HARDSCAPE CONTRACTOR FOR THIS PROJECT MUST BE ABLE TO DOCUMENT A MINIMUM OF FIVE (5) YEARS OF COMPARABLE EXPERIENCE IN THE INSTALLATION OF HARDSCAPE FOR PROJECTS OF SIMILAR SCALE, INTENSITY AND QUALITY. GENERAL CONTRACTOR MUST SUBMIT DOCUMENTATION TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO BID AWARD.

6. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH EXISTING SITE CONDITIONS AND NOTIFYING THE OWNER IN WRITING OF ANY CONCERNS PRIOR TO COMMENCEMENT OF WORK. THIS EVALUATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, VERIFICATION OF SURFACE AND SUBSURFACE UTILITIES, GRADES, DIMENSIONS, AND SOIL CONDITIONS.

7. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH PROJECT PLANS AND SCOPES OF WORK RELATED TO ASSOCIATED TRADES TO BE PERFORMED BY OTHERS IN ORDER TO IDENTIFY KEY COORDINATION ITEMS INCLUDING, BUT NOT LIMITED TO, SITE ACCESS, MATERIAL STORAGE, SCHEDULING AND SEQUENCING OF WORK. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SITE ISSUES WITH THE GENERAL CONTRACTOR.

8. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT WORK, MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO THEIR ACTIVITIES. THE HARDSCAPE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY THAT MAY OCCUR AS A RESULT OF THEIR EXECUTION OF THEIR WORK.

9. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE AREA, MATERIALS AND EQUIPMENT WITHIN THE LIMITS OF WORK IN A SAFE, NEAT AND ORDERLY MANNER. EXCESS MATERIALS AND DEBRIS ARE TO BE REMOVED FROM THE WORK AREA NO LESS THAN WEEKLY OR AS DIRECTED BY THE GENERAL CONTRACTOR.

10. THE HARDSCAPE CONTRACTOR SHALL COORDINATE ANY EXCAVATION IN THE VICINITY OF PRE-EXISTING OR NEWLY INSTALLED UTILITIES WITH THE GENERAL CONTRACTOR. IT IS THE RESPONSIBILITY OF THE HARDSCAPE CONTRACTOR TO NOTIFY ALL NECESSARY UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES AND OTHER ELEMENTS. THE CONTRACTOR MUST COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO INITIATING OPERATIONS EMERGENCY REPAIR PLANS AND ANY POSSIBLE SERVICE INTERRUPTION(S) ON-SITE AND OFF. THE HARDSCAPE CONTRACTOR SHALL BEAR THE SOLE RESPONSIBILITY OF ANY DAMAGE TO SUBSURFACE UTILITIES CAUSED BY THEIR WORK. RETURN OF SERVICES TO OFF-SITE AREAS (IF ANY) MUST BE IMMEDIATE.

11. THE HARDSCAPE CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT ALL EXISTING SITE ROADS, PARKING LOTS, CURBS AND UTILITIES FROM DAMAGE. THIS APPLIES NOT ONLY TO THE AREA WITHIN THE LIMITS OF WORK BUT ALSO ALONG ANY LOCAL ACCESS ROADS OR ROADWAYS.

12. THE HARDSCAPE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.

13. THE HARDSCAPE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO ENSURE THAT TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES (SILT FENCE, ORANGE GEO FENCE AND/OR OTHER MEASURES) ARE INSTALLED PRIOR TO BEGINNING EXCAVATION.

14. THE HARDSCAPE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES (SILT FENCE, ORANGE GEO FENCE AND/OR OTHER MEASURES) DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS TO THE ENVIRONMENT AND EXISTING PROPERTY ACCORDING TO ALL APPLICABLE LAW AND LOCAL CODES.

15. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL HARDSCAPE ITEMS INSTALLED UNTIL FINAL ACCEPTANCE BY THE OWNER.

16. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE AVAILABILITY OF ALL THE SPECIFIED MATERIALS WITHIN THIRTY(30) DAYS OF PROJECT AWARD. ALL REQUESTS FOR SUBSTITUTION DUE TO LACK OF AVAILABILITY MUST BE MADE TO THE OWNER IN WRITING WITHIN THIS PERIOD. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED PRIOR TO REQUESTING SUBSTITUTION. IN ORDER TO BE CONSIDERED BY THE OWNER AS VIABLE ALTERNATES MATERIALS MUST SHARE THE SAME GENERAL APPEARANCE, FORM, SIZE, TEXTURE, COLOR AND QUALITY. MATERIALS MUST BE OFFERED AT NO ADDITIONAL COSTS TO THE OWNER.

17. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE QUANTITIES OF EACH MATERIAL PER THE DRAWINGS. IN ADDITION THE CONTRACTOR MUST MONITOR THE ONGOING 'AS-BUILT' ENVIRONMENT ON THE JOB SITE THAT MAY IMPACT THEIR SCOPE. IN BOTH INSTANCES THE CONTRACTOR IS TO NOTIFY THE OWNER IMMEDIATELY OF AN DISCREPANCIES AND/OR CONCERNS.

18. THE OWNER RESERVES THE RIGHT TO REVIEW AND APPROVE ALL HARDSCAPE MATERIALS THROUGH THE REVIEW OF SUBMITTALS OF PRODUCT DATA, SAMPLES, SHOP DRAWINGS AND MOCK-UPS.

19. THE HARDSCAPE CONTRACTOR SHALL COORDINATE AND VERIFY ALL VERTICAL AND HORIZONTAL BENCHMARKS FOR THE PROJECT AREA WITH THE OWNER AND CLARIFY ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION.

20. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING GRADE STAKES AND BENCH MARKS ESTABLISHED BY OTHERS UNTIL AUTHORIZED BY THE GENERAL CONTRACTOR FOR REMOVAL.

21. THE HARDSCAPE CONTRACTOR SHALL STORE ALL MATERIALS IN AN AREA TO BE DETERMINED BY THE OWNER. ALL EXCESS STORED MATERIALS MUST BE REMOVED PRIOR TO FINAL ACCEPTANCE FROM THE OWNER.

22. THE OWNER REFERS THE RIGHT TO DEFER ANY AND ALL REVIEW RESPONSIBILITIES RELATED TO HARDSCAPE TO THE PROJECT LANDSCAPE ARCHITECT OR OTHER AUTHORIZED REPRESENTATIVE.

23. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR ENSURING PAVING SUBGRADE IS PROPERLY PREPARED AT THE TIME OF HARDSCAPE PLACEMENT. SOIL CONDITIONS MUST:

    A. CONSISTS OF A MINIMUM OF 6 IN OF COMPACTED AGGREGATE. (CONTRACTOR TO SUBMIT SAMPLE PRIOR TO CONSTRUCTION)
    B. BE COMPACTED TO A MINIMUM DENSITY OF 95%.
    C. EXTENDS 12 INCHES BEYOND THE LIMITS OF PAVING.
    D. PROOF ROLLED TO CHECK FOR UNSTABLE AREAS.
    E. FREE OF LOOSE MATERIALS.
    F. DAMPENED IMMEDIATELY PRIOR TO INSTALLATION.

24. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE DELIVERING AND STORING ALL MATERIALS IN THEIR ORIGINAL CONTAINERS IN A CLEAN, DRY CONDITION PRIOR TO THEIR INSTALLATION.

25. THE HARDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE LIMITS OF ALL PAVING AREAS AND SITE WALKS IN THE FIELD IN ACCORDANCE WITH THE DRAWINGS FOR APPROVAL BY THE OWNER PRIOR TO EXCAVATION AND INSTALLATION FOR OWNER REVIEW AND APPROVAL. THE OWNER RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS TO LAYOUT AS PART OF THIS REVIEW. FAILURE BY THE HARDSCAPE CONTRACTOR TO OBTAIN LAYOUT APPROVAL FROM THE OWNER PRIOR TO INSTALLATION MAY RESULT IN THE REMOVAL AND REINSTALLATION OF MATERIALS BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE OWNER.

26. THE HARDSCAPE CONTRACTOR SHALL USE THE COORDINATE GEOMETRY AND DIMENSIONS INDICATED ON THE SITE LAYOUT PLANS TO STAKE ALL SITE ELEMENTS, PAVEMENT AND PAVEMENT PATTERNS. FINAL LIMITS OF PAVING AND JOINTING PATTERNS MAY BE ADJUSTED IN THE FIELD AT THE DISCRETION OF THE OWNER.

27. THE HARDSCAPE CONTRACTOR SHALL COORDINATE THE LAYOUT OF THE PAVEMENT AND PAVEMENT PATTERN WITH THE LOCATION OF THE DRAIN INLETS, MANHOLES, VALVE BOXES, PULL BOXES AND OTHER AT GRADE UTILITY ELEMENTS TO THE ACCEPTANCE OF THE OWNER.

28. GRADING OF ALL HARDSCAPE SURFACES OF THE PROJECT SHALL POSITIVELY DRAIN TO DRAINAGE STRUCTURES INDICATED ON THE SITE GRADING AND CIVIL ENGINEERING PLANS. THE HARDSCAPE CONTRACTOR MUST ENSURE THAT THEIR WORK DOES NOT ADVERSELY IMPACT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.

29. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR CHECKING GRADES PRIOR TO INSTALLING ANY PAVING TO ENSURE COMPLIANCE WITH THE MAXIMUM ALLOWABLE SLOPE CRITERIA FOR UNIVERSAL ACCESSIBILITY. CRITICAL MEASUREMENTS ARE AS FOLLOWS:

    •A. MAXIMUM SLOPE IN DIRECTION OF WALK W/O HANDRAIL IS 1:20 OR 5%.
    •B. MAXIMUM SLOPE IN DIRECTION OF WALK W/ HANDRAIL (RAMP) IS 1:12 OR 8%.
    •C. MAXIMUM LENGTH OF RAMP BETWEEN LANDINGS IS 30'.
    •D. MAXIMUM VERTICAL CHANGE IN ANY SINGLE RAMP SECTION IS 30".
    •E. MAXIMUM CROSS SLOPE FOR ACCESSIBLE ROUTES IS 1:50 OR 2%.
    •F. THE CONTRACTOR IS TO NOTIFY THE OWNER IMMEDIATELY IF A FIELD CONDITION EXISTS THAT WILL BE OUT OF COMPLIANCE WITH THIS CRITERIA.

    NOTE: THESE SLOPES ARE ABSOLUTE MAXIMUMS AND DO NOT ALLOW FOR ANY ADDITIONAL CONSTRUCTION TOLERANCE.

30. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING WITH GENERAL CONTRACTOR THAT ALL PROPOSED UNDERGROUND WORK INCLUDING UTILITIES, CONDUIT, SLEEVES, DRAINAGE PIPES, ETC., HAVE BEEN INSTALLED PRIOR TO PREPARING AREA FOR HARDSCAPE. CONTRACTOR SHALL COORDINATE AND WORK CLOSELY WITH OTHER CONTRACTORS, TRADES TO AVOID DAMAGE TO THESE UNDERGROUND AND AT GRADE ELEMENTS. ANY DAMAGES SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.

31. THE HARDSCAPE CONTRACTOR SHALL MATCH GRADES AT INTERFACES WITH ADJACENT PAVING TYPES OR BUILDING ENTRANCES. VERIFY THAT THE CONDITION BETWEEN SURFACES IS FLUSH AND DOES NOT CREATE A TRIPPING HAZARD (1 IN MAX). VERIFY THAT SURFACE DRAINAGE IS DIRECTED AWAY FROM ALL BUILDING ENTRANCES.

32. THE HARDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE OWNER FOR REVIEW AND APPROVAL A MINIMUM OF THIRTY (30) DAYS PRIOR TO BEGINNING WORK:

    A. DOCUMENTATION OF HARDSCAPE CONTRACTOR(S) QUALIFICATIONS.
    B. DOCUMENTATION OF HARDSCAPE SUPERVISOR(S) QUALIFICATIONS.
    C. DOCUMENTATION OF LABORATORY TESTING AGENCIES CERTIFICATION.
    D. DOCUMENTATION OF READY-MIXED CONCRETE PLANT CERTIFICATION.

33. THE HARDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE OWNER FOR REVIEW AND APPROVAL A MINIMUM OF THIRTY (30) DAYS PRIOR TO INTENDED DATE OF USE:

    A. SHOP DRAWING IDENTIFYING SEQUENCE & JOINTING OF PAVEMENT INSTALLATION.
    B. CONCRETE MIX DESIGN FOR EACH PAVEMENT TYPE. OWNER'S REVIEW AND ACCEPTANCE OF MIX DESIGN DOES NOT RELIEVE CONTRACTOR'S RESPONSIBILITY TO ENSURE INSTALLED MATERIALS SATISFY SPECIFIED DESIGN CRITERIA.
    C. IDENTIFICATION AND QUALIFICATIONS OF READY MIX PLANT.
    D. IDENTIFICATION AND QUALIFICATIONS OF CERTIFIED TESTING LABORATORY.
    E. PRODUCT TECHNICAL DATA FOR ALL ADMIXTURES.
    F. PRODUCT TECHNICAL DATA FOR ALL CURING AGENTS.
    G. PRODUCT TECHNICAL DATA AND SAMPLE FOR EXPANSION JOINT MATERIAL.
    H. PRODUCT TECHNICAL DATA FOR REINFORCING MATERIAL.
    I. PRODUCT TECHNICAL DATA AND SAMPLE FOR PLASTIC DOWELS.
    J. PRODUCT TECHNICAL DATA AND SAMPLE FOR EACH JOINT SEALANT.
    K. PRODUCT TECHNICAL DATA AND SAMPLE FOR EACH CONCRETE UNIT PAVER.
    L. ONE QUART SAMPLE OF SAND.
    M. ONE QUART SAMPLE OF EACH AGGREGATE TYPE.
    N. MILL CERTIFICATES FOR CONCRETE REINFORCING IDENTIFYING SOURCE, DESCRIPTION, HEAT NUMBER, YIELD POINT, TENSILE STRENGTH, ELONGATING PERCENTAGE, BEND TEST AND CHEMICAL ANALYSIS.

34. THE HARDSCAPE CONTRACTOR IS REQUIRED TO PREPARE THE FOLLOWING MOCK-UPS FOR REVIEW AND APPROVAL A MINIMUM OF THIRTY (30) DAYS PRIOR TO INTENDED DATE OF INSTALLATION:

    A. ONE 5' SQUARE PANEL OF EACH PAVEMENT TYPE.
    B. MOCK-UPS ARE TO BE CONSTRUCTED AND MAINTAINED AT AN ON-SITE LOCATION TO BE DETERMINED BY THE OWNER. MOCK-UPS WILL BE USED AS QUALITY CONTROL MEASUREMENT WHEN ASSESSING THE COLOR, TEXTURE, WORKMANSHIP AND CURING EXPECTED IN THE COMPLETED WORK. THE OWNER RESERVES THE RIGHT TO REJECT ANY HARDSCAPE INSTALLATION THEY JUDGE AS NON-CONFORMING WITH THE APPROVED MOCK-UP.

35. THE HARDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE OWNER FOR REVIEW AND APPROVAL AS THEY BECOME AVAILABLE DURING THE COURSE OF CONSTRUCTION:

    A. LABORATORY TEST REPORTS FOR CONCRETE YIELD, COMPRESSION AND SLUMP.
    B. AGENCY INSPECTION REPORTS
    C. SHIPPING AND DELIVERY RECEIPTS FOR ALL MATERIALS.
    D. DELIVERY TICKETS FOR EACH BATCH OF CONCRETE RECEIVED CONFIRMING COMPLIANCE WITH MIX DESIGN.

36. THE HARDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE OWNER FOR REVIEW AND APPROVAL A MINIMUM OF TEN DAYS PRIOR TO FINAL WALK THROUGH :

    A. 'AS-BUILT' RECORD DOCUMENTS OF INSTALLATION (3 SETS) IDENTIFYING ANY DEVIATIONS FROM CONSTRUCTION PLANS. THESE PLANS ARE TO BE UPDATED BY THE CONTRACTOR AT LEAST WEEKLY THROUGHOUT THE CONSTRUCTION PERIOD FOR INFORMAL PROGRESS REVIEW BY THE OWNER.
    B. WRITTEN RECOMMENDATIONS FOR ONGOING MAINTENANCE PROGRAM (3 COPIES).

37. IN THE EVENT THAT THE HARDSCAPE CONTRACTOR PROCEEDS WITH PROCURING, DELIVERIES OR INSTALLATION OF MATERIALS WITHOUT THE APPROVAL OF THE OWNER THEY WILL BE DOING SO AT THEIR OWN RISK. THE CONTRACTOR WILL BEAR THE SOLE RESPONSIBILITY FOR COSTS ASSOCIATED WITH CORRECTIONS THAT NEED TO BE MADE UP TO AND INCLUDING REMOVAL AND REPLACEMENT. CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ANY IMPACTS CAUSED ON OVERALL CONSTRUCTION SCHEDULE (IF ANY) CAUSED BY REWORK.

38. THE HARDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE THE OWNER WITH ADVANCE NOTICE FOR THE FOLLOWING SITE VISITS WITHIN THE TIME FRAME INDICATED. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE STATUS OF THE HARDSCAPE WORK PRIOR TO FORWARDING REQUEST TO OWNER.
    A. PRECONSTRUCTION CONFERENCE: 7 DAYS
    B. GRADE AND LAYOUT REVIEW: 72 HOURS
    C. FORMWORK REVIEW: 72 HOURS
    D. PUNCH LIST (SUBSTANTIAL COMPLETION) REVIEW: 7 DAYS
    E. FINAL WALK-THROUGH: 7 DAYS

39. CONCRETE PAVING MAY BE DEEMED DEFECTIVE WHEN:
    A. OVERALL APPEARANCE DOES NOT CONFORM WITH APPROVED MOCK-UP.
    B. LAYOUT IS INCORRECTLY FORMED
    C. GRADIENTS ARE OUTSIDE APPROVED TOLERANCES
    D. TESTS RESULTS FAIL TO SHOW SPECIFIED STRENGTHS.
    E. FINISH IS INCONSISTENT
    F. COLORING IS INCONSISTENT
    G. OUT OF PLUMB OR LEVEL AS INDICATED
    H. OCCURRENCE OF SHEARING, CRACKING OR UNEVEN SETTLEMENT
    I. PRESENCE OF EMBEDDED DEBRIS
    J. INCORRECT OR IRREGULAR JOINT SPACING AND/OR ALIGNMENT.
    K. EXHIBITS EVIDENCE OF UNAUTHORIZED REPAIR OR PATCH WORK.

40. SURFACE IS STAINED OR DISCOLORED (INCLUDING RUST) FROM AN OUTSIDE AGENT (INCLUDING PAINT). IT IS INTENDED THAT THE CONCRETE PAVING FOR THIS PROJECT BE HOMOGENOUS AND, WHEN HARDENED, UNIFORMLY POSSESS THE REQUIRED STRENGTH, DURABILITY, WATER TIGHTNESS, APPEARANCE, RESISTANCE TO DETERIORATION AND ABRASION AS SPECIFIED.

41. THE HARDSCAPE CONTRACTOR IS TO PROVIDE A CONCRETE MIX DESIGN FOR THE CONCRETE PAVING FOR THIS PROJECT THAT CONFORM TO THE APPROVED ENGINEERING SPECIFICATIONS FOR THE PROJECT.

42. APPLICATION RATE FOR ALL ADMIXTURES SHALL BE IN STRICT ACCORDANCE WITH THE ADMIX MANUFACTURER'S RECOMMENDATIONS.

43. THE HARDSCAPE CONTRACTOR SHALL PREPARE A SHOP DRAWING FOR OWNER REVIEW AND APPROVAL THAT INDICATES THE SEQUENCE OF POURS AS WELL AS THE PROPOSED LOCATIONS OF FOR EACH TYPE OF PAVING JOINT (EXPANSION, CONTRACTION, CONSTRUCTION, ISOLATION). THE DESIGN INTENT OF THE JOINTING PATTERN IS AS SHOWN ON THE 'HS' PLANS. ALL PAVEMENT JOINTS ARE TO BE PARALLEL, PERPENDICULAR OR TANGENT TO ADJACENT LINES UNLESS SPECIFICALLY NOTED OTHERWISE. JOINTS ARE TO BE SPACED IN MODULES THAT WILL REDUCE THE CHANCES FOR CONCRETE SHEARING, SPALLING OR EXCESSIVE SPIDER CRACKING. THE CONTRACTOR SHOULD INDICATE ON SHOP DRAWING SUBMITTAL AND PROPOSED MODIFICATIONS TO PATTERN THAT WOULD HELD REDUCE FUTURE CRACKING.

44. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR SETTING ALL CONCRETE FORMWORK, EDGE FORMS AND SCREED STRIPS TO THE CORRECT ALIGNMENT AND ELEVATION AS SHOWN IN THE DRAWINGS. FORMS MUST BE TIGHT FITTING AND ADEQUATELY BRACED TO SUPPORT WEIGHT OF CONCRETE WITHOUT VERTICAL OR HORIZONTAL DEFLECTION OR LEAKAGE. MAXIMUM ALLOWABLE TOLERANCES ARE 1/10 IN, 10 FT VERTICALLY AND 2/10 IN, 10 FT HORIZONTALLY. FORMS MUST BE CLEANED PRIOR TO EACH USE AND MUST BE FREE OF WARPS, KINKS AND BENDS. CLEANED FORMS ARE TO BE COATED WITH FORM RELEASE AND DAMPENED WITH WATER IMMEDIATELY PRIOR TO POURING.

45. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR PREPARING A MINIMUM OF 3 TEST CYLINDERS FROM EACH POUR. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SAMPLES TO CERTIFIED MATERIAL TESTING LABORATORY FOR ANALYSIS. SAMPLES ARE TO BE TESTED TO ENSURE THAT 60% OF DESIGN STRENGTH HAS BEEN ACHIEVED AT 7 DAYS AND 100% DESIGN STRENGTH HAS BEEN ACHIEVED AT 28 DAYS. ONE ADDITIONAL SAMPLE SHOULD BE COLLECTED AND ALLOWED TO CURE ON-SITE IF POUR OCCURS DURING EXCESSIVELY HOT OR COLD CONDITIONS AS DEFINED BY ASTM.

46. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR TAKING A MINIMUM OF ONE SLUMP TEST FOR EACH SET OF TEST CYLINDERS COLLECTED. DESIGN SLUMP FOR CONCRETE PAVING ON GRADE IS THREE INCHES PLUS/MINUS 1 IN.

47. CONCRETE FOR ALL POURED IN PLACE CONCRETE PAVING FOR THIS PROJECT IS TO COME FROM A SINGLE SOURCE THAT MAY NOT BE CHANGED DURING THE COURSE OF CONSTRUCTION WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER

48. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR KEEPING A RECORD PLAN INDICATING THE DATE AND PLACEMENT OF EACH CONCRETE DELIVERY THAT COINCIDES WITH RECORD TRANSIT-MIX DELIVERY TICKETS.

49. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TEMPERATURE OF POURED CONCRETE AT A MINIMUM OF 50° FAHRENHEIT FOR A PERIOD OF 7 DAYS AFTER PLACEMENT. PROTECT WORK FROM FROST AND RAPID DRYING.

50. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR COLD BENDING REBAR AS REQUIRED TO CONFORM TO THE SHAPES AND DIMENSIONS OF THE AREA. DO NOT ATTEMPT TO RE-BEND OR STRAIGHTEN A BAR IF AN ERROR IS MADE ORIGINAL BENDING.

51. THE HARDSCAPE CONTRACTOR SHALL ERECT CONCRETE FORMWORK TO PERMIT EASY DISMANTLING, STRIPPING AND REMOVAL WITHOUT DAMAGING FINISHED CONCRETE. FORMS MAY NOT BE REMOVED UNTIL THE CONCRETE HAS REACHED A MINIMUM OF 75% OF THE REQUIRED 28 DAY STRENGTH. FORMWORK AND SHORING WILL NOT BE ALLOWED TO REMAIN IN PLACE.

52. CONCRETE POURS SHALL BE CONTINUOUS BETWEEN CONSTRUCTION JOINTS. THE HARDSCAPE CONTRACTOR SHALL LIMIT THE SIZE OF SINGLE POURS TO THE AREA THAT CAN BE PLACED IN ONE HOUR.

53. ALL SAW CUT CONTROL JOINTS ARE TO BE COMPLETED A MAXIMUM OF 72 HOURS FROM THE TIME CONCRETE IS FINISHED. THE CONTRACTOR IS TO CHALK ALL PROPOSED CUT LINES ON FINISHED SLAB FOR OWNER REVIEW AND APPROVAL PRIOR TO CUTTING.

54. THE HARDSCAPE CONTRACTOR IS RESPONSIBLE FOR BACK CHECKING TO MAKE SURE ALL SOILS, SLEEVING, UTILITIES AND FORMS ARE IN PLACE AND ADEQUATELY PREPARED 24 HOURS PRIOR TO EACH POUR.

55. THE HARDSCAPE CONTRACTOR SHALL PLACE, SCREED, WOOD FLOAT, TAMP AND TROWEL CONCRETE SURFACES TO A SMOOTH, UNIFORM FINISH, FREE OF OPEN TEXTURING AND EXPOSED AGGREGATE WHILE AVOIDING WORKING EXCESSIVE MORTAR TO THE SURFACE.

56. THE HARDSCAPE CONTRACTOR SHALL ENSURE THAT STANDARD CONCRETE PAVING FINISHES BE SLIP-RESISTANT WITH A MINIMUM COEFFICIENT OF FRICTION OF (0.5). IN AREAS IN WHICH WET CONDITIONS ARE ANTICIPATED (i.e. POOLS, SPAS, FOUNTAINS) A COEFFICIENT OF (0.6) IS REQUIRED.

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REVISIONS:

NUMBER	DESCRIPTION	DATE
X1	SITE PERMIT	04/08/2019

SHEET TITLE:

HARDSCAPE NOTES

JOB #: 20160058

ISSUED FOR:

ISSUE DATE: 04/08/2019

SCALE: PER VIEW

SHEET:

L001

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GENERAL HARDSCAPE CONDITIONS

57. THE CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL SITE FURNISHINGS AS SHOWN ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. THE CONTRACTOR'S RESPONSIBILITY IS INCLUSIVE OF ORDERING, PURCHASING, DELIVERY, UNPACKING, ASSEMBLING, INSTALLATION AND PROTECTION.

58. THE CONTRACTOR IS REQUIRED TO CONFIRM THE QUANTITY REQUIRED FOR EACH SITE FURNISHING ITEM WITH THE OWNER PRIOR TO PROCUREMENT. ANY INCREASE OR DECREASE IN ELEMENTS FROM THE QUANTITY SHOWN IN THE DRAWINGS WILL BE ADJUSTED ON A UNIT COST BASIS.

59. THE PRODUCT SPECIFICATIONS SHOWN ON THE DRAWINGS ARE FOR BIDDING PURPOSES. THE OWNER RESERVES THE RIGHT TO REVIEW AND APPROVE ALL SITE FURNISHINGS PRIOR TO PROCUREMENT. IF PRODUCT SPECIFICATION IS MODIFIED DURING REVIEW PROCESS CONTRACT WILL BE ADJUSTED ACCORDINGLY. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE OWNER FOR REVIEW NO LESS THAN 30 DAYS PRIOR TO INTENDED DATE OF ORDER.

    A. MANUFACTURER'S DATA INCLUDING AT A MINIMUM; PHOTO, INSTALLATION RECOMMENDATIONS AND MAINTENANCE RECOMMENDATIONS.

    B. SHOP DRAWINGS IDENTIFYING ALL MATERIAL SIZES, SHAPES, FINISH AND QUALITY OF ALL COMPONENTS.

    C. COLOR SAMPLES

    D. ONE FULL-SIZE SAMPLE OF EACH ELEMENT OR A MANUFACTURER'S LIST OF EXISTING LOCAL INSTALLATIONS THAT MAY BE REVIEWED IN PLACE BY THE OWNER.

    E. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL SITE FURNISHINGS ARE DELIVERED TO THE PROJECT SITE WITH MANUFACTURER'S TAGS AND LABELS INTACT AND IN CLEAN, DRY LEGIBLE CONDITION. COPIES OF ALL SHIPPING TICKETS ARE TO BE SUBMITTED TO THE OWNER.

    F. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING ALL SITE FURNISHINGS ARRIVING ON-SITE PRIOR TO ACCEPTING DELIVERY. INSPECTION IS TO VERIFY CORRECT PRODUCT AND QUANTITY AS WELL AS TO VISUALLY INSPECT FOR ANY DAMAGE, BLEMISHES OR DEFECTS.

    G. UPON RECEIPT OF DELIVERY THE CONTRACTOR ASSUMES RESPONSIBILITY FOR STORING, HANDLING AND MAINTAINING SITE FURNISHINGS IN A MANNER TO PREVENT DEFECTS, DAMAGE, CRACKS, CHIPS, STAINS. FURNISHINGS SHALL BE COMPLETELY CLEAN AND FREE OF DAMAGES UPON FINAL PLACEMENT AND APPROVAL.

    H. FINAL LOCATIONS OF SITE FURNISHINGS ON SITE ARE SUBJECT TO ADJUSTMENT AT THE DIRECTION OF THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING OWNER APPROVAL PRIOR TO INSTALLATION.

    I. TO MINIMIZE RISK OF DAMAGE IT IS RECOMMENDED THAT NO SITE FURNISHINGS BE INSTALLED MORE THAN THIRTY DAYS PRIOR TO DATE OF PROJECT TURNOVER. INSTALLED SITE FURNISHING ARE TO BE COVERED AND CONSIDERED OFF-LIMITS TO CONSTRUCTION WORKERS.

    J. ALL FURNITURE ANCHORS, FASTENINGS, FITTINGS AND MOUNTING HARDWARE ARE TO COMMERCIAL QUALITY STAINLESS STEEL. FASTENERS ARE TO BE VANDAL AND THEFT RESISTANT PIECES AND SHOULD BE CONCEALED, RECESSED, CAPPED OR PLUGGED.

    K. AT THE TIME OF PROJECT CLOSE-OUT THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A MINIMUM OF TWENTY PIECES OF EACH ANCHORING FASTENER TO BE HELD AS ATTIC STOCK FOR REPLACEMENT.

    L. INSTALL ALL MATERIALS PER MANUFACTURERS SPECIFICATION.

60. ALL STONE REQUIRED MUST BE PURCHASED FROM THE SAME LOCATION.

61. STONE PAVING IS TO BE SET INTO THIN-SET MORTAR SETTING BED UNLESS OTHERWISE DOCUMENTED IN PLANS.

62. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL STONE PAVING IS DELIVERED TO THE PROJECT SITE WITH MANUFACTURER'S TAGS AND LABELS INTACT AND IN CLEAN, DRY LEGIBLE CONDITION. COPIES OF ALL SHIPPING TICKETS ARE TO BE SUBMITTED TO THE OWNER.

63. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING ALL STONE PAVING ARRIVING ON-SITE PRIOR TO ACCEPTING DELIVERY. INSPECTION IS TO VERIFY CORRECT PRODUCT AND QUANTITY AS WELL AS TO VISUALLY INSPECT FOR ANY DAMAGE, BLEMISHES OR DEFECTS.

MEMBRANE-FORMING CURING COMPOUND

1. MATERIALS WITH A MAXIMUM VOC RATING OF 3 lb/gal.

MOISTURE RETAINING COVER

1. IN COMPLIANCE WITH ASTM C-171.
    A. WATERPROOF PAPER
    B. POLYETHYLENE FILM
    C. WHITE BURLAP-POLYETHYLENE SHEETING

REINFORCING STEEL

1. NEW, CLEAN, GRADE 60, FREE OF KINKS, LOOSE RUST AND/OR SCALE.

TIE WIRE

1. TIE WIRE FOR POSITIONING REBAR TO BE FS QQ-W-461-G, ANNEALED-BLACK, 16 GA. SET TIES SO THAT TWISTED ENDS POINT AWAY FROM FINISH SURFACE.

WATER

1. POTABLE, CLEAN AND FREE OF OILS, ACIDS, ALKALINES, SALTS, ORGANIC MINERALS OR OTHER SUBSTANCES THAT MAYBE DELETERIOUS TO CONCRETE OR REINFORCING.

WATERBORNE MEMBRANE:

1. CLEAR, MEMBRANE-FORMING CURING MATERIALS WITH A MAXIMUM VOC RATING OF 3lb/gal.

HARDSCAPE MATERIALS

1. ABSORPTIVE COVER: CLEAN ROLLS OF BURLAP CLOTH MADE OF JUTE OR KENAF. FOR USE ON NATURAL GRAY COLOR CONCRETE ONLY.

2. BAR SUPPORTS: STEEL REINFORCING IS TO BE SECURED AND SUPPORTED IN SLAB TO MAINTAIN POSITION AS SHOWN IN DETAIL AND STANDARD PRACTICE USING BOLSTERS, CHAIRS AND SPACERS AS REQUIRED. A MINIMUM OF 2 IN CONCRETE COVER MUST BE MAINTAINED FOR ALL REINFORCING STEEL. REINFORCING BY OTHERS.

3. BONDING AGENT: ACRYLIC OR STYRENE BUTADIENE.

4. CEMENT: TYPE 1 PORTLAND CEMENT.

5. COARSE AGGREGATE: CLEAN LIMEROCK OF EXCEPTIONAL HARDNESS. UNIFORMLY GRADED FROM COARSE TO FINE.

6. DOWELS: DOWELS FOR JOINTS ARE TO BE PLAIN, SMOOTH STEEL BARS, CUT TO TRUE LENGTH AND FREE OF RUST, SCALES AND BURRS.

7. DOWEL SLEEVES: POLYPROPYLENE PLASTIC SLEEVES TO ENSURE PROPER ALIGNMENT OF JOINT DOWELS .

8. EPOXY: TWO-PART CHEMICAL ADHESIVE SUITABLE FOR DRY OR DAMP SURFACES.

9. EVAPORATION CONTROL: MONOMOLECULAR FILM FORMING COMPOUND APPLIED TO EXPOSED CONCRETE SURFACES FOR TEMPORARY PROTECTION FROM RAPID MOISTURE LOSS.

10. EXPANSION JOINT FILLER: PREMOLDED, BITUMINOUS, ASPHALT IMPREGNATED FIBER BOARD, FULL DEPTH, 2.5 IN THICK WITH TEMPORARY PROTECTIVE STRIP ON TOP EDGE.

11. FINE AGGREGATE: HARDROCK AGGREGATE FOR INTEGRAL MIX CONCRETE CONSISTING OF A WASHED SAND. PARTICLES ARE TO BE DURABLE AND STRONG AND CONTAIN A MAXIMUM OF 1% OF WEIGHT OF DELETERIOUS MATERIALS SUCH AS CLAY, SHALE, SCHIST, ALKALI, MICA, ETC.

12. FLY ASH: TYPE F. THE COMBINED WEIGHT OF FLY ASH MUST NOT EXCEED 25% OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS.

13. FORMS: MATERIALS USED FOR FORMS MAY INCLUDE PLYWOOD, METAL OR OTHER ACCEPTABLE PANEL-TYPE MATERIALS. MATERIALS MUST DELIVER A STRAIGHT, SMOOTH, CONTINUOUS EDGE. FORMS MUST BE CLEAN AND PROVIDED TO THE FULL DEPTH OF THE PAVEMENT SECTION. FLEXIBLE OR CURVED FORM MUST BE USED FOR RADII THAT ARE LESS THAN 180ft. FORM TIES SHOULD BE STAINLESS STEEL. SHOVEL FORMING IS NOT PERMITTED.

GENERAL IRRIGATION NOTES

1. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND VERIFICATION OF ALL EXISTING UTILITIES AND STRUCTURES. DAMAGE DONE TO UTILITIES, STRUCTURES OR OTHER FINISHED WORK SHALL BE REPAIRED OR REPLACED AT THE IRRIGATION CONTRACTORS EXPENSE.

2. CONTRACTOR SHALL VERIFY PRESSURE PRIOR TO INSTALLATION OF SYSTEM. SYSTEM DESIGN BASED ON MINIMUM 30 PSI AT EACH IRRIGATION HEAD OR A MINIMUM OF 40 PSI AT EACH DRIP IRRIGATION ZONE.

3. VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK.

4. CONTACT LANDSCAPE ARCHITECT AND COORDINATE ALL REVIEWS PRIOR TO COMMENCEMENT OF WORK.

5. CONTRACTOR SHALL INSTALL ALL IRRIGATION EQUIPMENT IN THE TURF AREAS AND PLANTING BEDS IN A MANNER SO AS TO CONFORM WITH THE VARIOUS DETAILS, PLAN NOTES, SPECIFICATION FROM LANDSCAPE ARCHITECT AND MANUFACTURER.

6. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR EXISTING TREES AND UTILITIES. THE CONTRACTOR SHALL VERIFY LOCATION AND CONDITION OF ALL UTILITIES AND BE RESPONSIBLE FOR DAMAGE TO TREES OR UTILITIES. FIELD ADJUST SPRINKLER LOCATIONS SO AS TO AVOID CONFLICTS WITH UTILITIES (FIRE HYDRANTS, TRANSFORMERS, ETC.).

7. PROTECT AT ALL TIMES THE WORK FROM DAMAGE AND THEFT. REPLACE ALL DAMAGED OR STOLEN PARTS AT
8. CONTRACTOR'S EXPENSE UNTIL THE WORK IS ACCEPTED IN WRITING BY THE OWNER.

9. FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE. INSTALL RAIN BIRD PRS-D PRESSURE REGULATING MODULES ON ALL VALVES OPERATING AT PRESSURES HIGHER THAN 10 PSI FROM OPERATION PSI AS STATED IN THE VALVE SCHEDULES FOR EACH ZONE.

10. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT WIND CONDITIONS, OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA'S DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED DURING DESIGN. BRING SUCH OBSTRUCTIONS OR DIFFERENCE TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND COSTS FOR ALL NECESSARY REVISIONS.

11. ADJUST HEAD LOCATION IF SPRAY IS DETRIMENTAL TO OR BLOCKED BY TREE, SHRUB, OR STRUCTURE, MAINTAINING EVEN COVERAGE OF PLANTED AREAS.

12. INSTALL ALL MAINLINES TO SLOPE AT 1% MINIMUM TO MANUAL DRAIN VALVES LOCATED AT LOW POINTS OF MAIN SYSTEM.

13. ALL SPRINKLER HEADS SHALL BE ADJUSTED SO THEY DO NOT SPRAY ONTO WALKS, PARKING AREAS, RETAINING WALLS, BUILDINGS OR THE HARDSCAPE AREAS.

14. THE CONTRACTOR SHALL PLACE A #12 BARE COPPER TRACE LINE ALONG ALL PVC MAINLINE THAT DOES NOT HAVE IRRIGATION CONTROL WIRES PROPOSED. THIS INCLUDES ALL PVC MAINLINE CONNECTING QUICK COUPLER VALVES.

15. CONTRACTOR SHALL INSTALL SLEEVES UNDER HARDSCAPE AT ALL POINTS WHERE IRRIGATION MAIN LINE AND LATERALS ARE LOCATED.

16. ALL QUANTITIES SHOWN ARE FOR CONVENIENCE ONLY. THE IRRIGATION CONTRACTOR SHALL VERIFY ALL QUANTITIES AND SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL REQUIRED ITEMS AND COMPONENTS.

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LANDSCAPE NOTES

49. THE LANDSCAPE CONTRACTOR SHALL INSTALL PLANT MATERIALS USING THE BEST HORTICULTURAL PRACTICES:

    A. PROTECT PLANT MATERIAL FROM DAMAGE DURING DELIVERY, STAGING AND INSTALLATION.
    B. DO NOT BEGIN INSTALLATION OF SHRUB AND GROUNDCOVER MATERIALS PRIOR TO COMPLETION OF IRRIGATION INSTALLATION AND FINISH GRADING,
    C. DO NOT INSTALL PLANT MATERIALS IN TEMPERATURES LESS THAN 32° FAHRENHEIT.
    D. DO NOT INSTALL PLANT MATERIALS IN WINDS IN EXCESS OF 31 MILES PER HOUR.
    E. DO NOT WILLFULLY INSTALL PLANT MATERIAL IF DEEMED SITE CONDITIONS WILL IMPEDE THE ABILITY OF PLANT MATERIAL TO THRIVE WITHOUT NOTIFYING PROJECT MANAGER OF CONCERNS PRIOR TO INSTALLATION.
    F. PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS INCLUSIVE OF ALL PERMITS AND INSPECTIONS REQUIRED BY FEDERAL, STATE AND LOCAL JURISDICTIONS.
    G. THE USE OF CABLES AND CHAINS FOR THE LIFTING OF TREES IS PROHIBITED. TREES ARE TO LIFTED USING NYLON STRAPS A MINIMUM OF 4 IN WIDTH. WRAP TRUNKS TO PROTECT FROM SCRAPING AND SCARRING.
    H. THE 'CHOKE' STRAPPING METHOD FOR LIFTING TREES IS PROHIBITED.
    I. DO NOT DROP PLANT MATERIAL.
    J. LIMIT THE AMOUNT OF PLANTS TO BE INSTALLED PER DAY TO THOSE THAT CAN ADEQUATELY BE WATERED IN THE SAME DAY.
    K. CAREFULLY REMOVE CONTAINERIZED PLANTS FROM THEIR CANS TO AVOID BREAKING THE ROOT BALL. CONTAINERS SHOULD ONLY BE REMOVED IMMEDIATELY PRIOR TO INSTALLATION AND PLANTS SHOULD BE IMMEDIATELY WATERED AFTER PLACEMENT.
    L. REMOVE BURLAP FROM AT LEAST THE TOP THIRD OF THE ROOT BALL FOR ALL B&B MATERIAL. REMOVE WIRE BASKETS TO A MINIMUM DEPTH OF 20 IN.
    M. PLANT MATERIAL MUST BE INSTALLED AT CORRECT ELEVATION IN RELATION TO FINISH GRADE AS INDICATED ON THE PLANTING DETAILS AFTER SETTLING. PLANTS SET AT INCORRECT ELEVATIONS WILL NEED TO BE RAISED OR LOWERED ACCORDINGLY AT NO ADDITIONAL COST TO THE PROJECT MANAGER.
    N. SET FERTILIZER TABLETS ON TOP OF ROOT BALL FOR ALL TREES LAID OUT FOR PLANTING TO ALLOW PROJECT MANAGER TO CONFIRM CORRECT AMOUNT. SET TABLETS AT A DEPTH EQUAL TO ⅓ THE ROOT BALL WHEN INSTALLED.
    O. PLANTING PITS FOR TREES AND SHRUBS MUST BE EXCAVATED TO THE DIMENSIONS SPECIFIED ON THE PLANTING DETAILS. FOLLOWING PLANTING AREA IMMEDIATELY SURROUNDING PLANT IS TO BE TAMPED FIRM AND USE WATER JET TECHNIQUE TO REMOVE ALL AIR POCKETS REPEATING AS REQUIRED.
    P. APPLY REWETTING AGENT TO THE SURFACE OF ALL PLANT PITS FOR TREES AND SHRUBS PER MANUFACTURER'S RECOMMENDATIONS.
    Q. APPLY MULCH IN EVEN LAYER TO 3 IN MIN. DEPTH. DO NOT PLACE MULCH WITHOUT THE APPROVAL OF THE PROJECT MANAGER THAT WEED REMOVAL AND FINE GRADING REQUIREMENTS HAVE BEEN MET.
    R. CONTINUOUSLY MONITOR STATUS OF INSTALLED MATERIALS AND MAKE MODIFICATIONS, CLEAN-UPS AND REPLACEMENTS AS REQUIRED.

FINE GRADING NOTES

1. THE LANDSCAPE AREAS WITHIN THE LIMITS OF WORK SHOULD BE ROUGH GRADED TO WITHIN +/- 8 - 10" OF FINISH GRADE IN SHRUB AREAS AND +/- I.5" IN SOD AREAS PRIOR TO BEGINNING PLANT INSTALLATION.

2. FINISHED GRADE IN PLANTING AREAS SHALL BE HELD BE 2 IN BELOW THE FINISHED ELEVATIONS SHOWN FOR ALL ADJACENT HARDSCAPE SURFACES.

3. ALL FILL REQUIRED SHALL BE CLEAN, WELL DRAINING SOIL. FILL SHALL BE CLEAN AND FREE OF ALL MATERIAL HARMFUL TO PLANT GROWTH AND DELETERIOUS MATERIAL SUCH AS ROCKS (LARGER THAN 2 IN DIA.), COMPACTED CLAY, ROADBED OR SURFACING MATERIAL, MUCK, ROOTS, BRANCHES, ETC.

4. FINAL CONTOURING WITHIN PLANTING AREAS SHALL BE HAND RAKED TO PROVIDE SMOOTH, CONTINUOUS ARCS EVEN IN TRANSITION AND VOID OF DEPRESSIONS AND SURFACE IRREGULARITIES. REPAIR ANY SCARRING CAUSED BY EROSION DURING THE COURSE OF CONSTRUCTION.

5. THE LANDSCAPE CONTRACTOR IS TO ENSURE THAT THEIR WORK DOES NOT ADVERSELY IMPACT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.

6. GRADING IN ALL PLANTING AND HARDSCAPE AREAS OF THE PROJECT SHALL POSITIVELY DRAIN TO DRAINAGE STRUCTURES INDICATED ON THE SITE GRADING AND CIVIL ENGINEERING PLANS.

7. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING GRADE STAKES AND BENCH MARKS ESTABLISHED BY OTHERS UNTIL AUTHORIZED BY THE CONSTRUCTION MANAGER FOR REMOVAL.

8. THE LANDSCAPE CONTRACTOR IS TO PERFORM SAMPLE PERCOLATION TEST BY EXCAVATING TREE PITS TO THEIR FULL DEPTHS AND FILLING COMPLETELY TO FINISH GRADE. PIT SHOULD DRAIN TO ½ DEPTH WITHIN TWO HOURS AND ENTIRELY WITHIN EIGHT HOURS. IF PITS FAIL TO SATISFY THESE REQUIREMENTS THE LANDSCAPE CONTRACTOR MUST NOTIFY THE PROJECT MANAGER IMMEDIATELY.

9. THE LANDSCAPE CONTRACTOR IS TO REMAIN VIGILANT IN IDENTIFYING CONDITIONS THAT COULD ADVERSELY EFFECT ABILITY OF LANDSCAPE MATERIAL TO THRIVE. CONDITIONS TO BE MONITORED INCLUDE, BUT ARE NOT LIMITED TO, THE PRESENCE OF HARD-PAN, RUBBLE, ROAD BASE, CONSTRUCTION DEBRIS, IMPERMEABLE SOILS, CHEMICAL SPILLS AND WASH-OUTS.

10. SHOULD THE CONSTRUCTION DICTATE THAT ANY TREE BE INSTALLED PRIOR TO THE COMPLETION OF THE ROUGH GRADING ACTIVITIES THE LANDSCAPE CONTRACTOR SHALL RELY ON A SURVEYED ELEVATION BASED ON A CONFIRMED BENCHMARK TO SET THE TREE(S) WITH THE CORRECT RELATIONSHIP TO FINISH GRADE.

LANDSCAPE OBSERVATION SCHEDULE

1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE THE PROJECT MANAGER WITH ADVANCE NOTICE FOR THE FOLLOWING SITE VISITS WITHIN THE TIME FRAME INDICATED. IT IS THE RESPONSIBILITY OF THE CONSTRUCTION MANAGER TO VERIFY THE STATUS OF THE LANDSCAPE WORK PRIOR TO FORWARDING REQUEST TO PROJECT MANAGER.

    A. PRECONSTRUCTION CONFERENCE: 7 DAYS
    B. FINAL GRADE REVIEW: 72 HOURS
    C. PLANT MATERIAL REVIEW: 72 HOURS
    D. PLANT LAYOUT REVIEW: 72 HOURS
    E. PREMULCH REVIEW: 72 HOURS
    F. PRE-PUNCH COURTESY REVIEW: 72 HOURS
    G. PUNCH LIST (SUBSTANTIAL COMPLETION) REVIEW: 7 DAYS
    H. FINAL WALK-THROUGH: 7 DAYS

LANDSCAPE SUBMITTALS REQUIRED

1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL A MINIMUM OF THIRTY (30) DAYS PRIOR TO BEGINNING WORK:

    A. DOCUMENTATION OF LANDSCAPE CONTRACTOR'S QUALIFICATIONS.
    B. DOCUMENTATION OF LANDSCAPE SUPERVISOR'S QUALIFICATIONS.

2. THE LANDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL A MINIMUM OF THIRTY (30) DAYS PRIOR TO INTENDED DATE OF USE:

    A. DOCUMENTATION OF PLANT NURSERY QUALIFICATIONS.
    B. TEST REPORTS AND RECOMMENDATIONS FROM CERTIFIED TESTING LABORATORY.
    C. ONE QUART SAMPLES OF EXISTING SITE SOIL FROM EACH SAMPLE AREA.
    D. ONE QUART SAMPLES OF EACH SOIL AMENDMENT (IF ANY).
    E. ONE QUART SAMPLES OF EACH AMENDED SOIL (IF ANY).
    F. ONE QUART SAMPLES OF EACH MULCH TYPE SPECIFIED.
    G. ONE QUART SAMPLE OF PEAT.
    H. ONE QUART SAMPLES OF EACH BACKFILL MIX.
    I. ONE QUART SAMPLE OF ANY IMPORTED FILL MATERIAL (IF ANY).
    J. MANUFACTURER'S PRODUCT DATA AND RECOMMENDED APPLICATION RATES FOR ALL FERTILIZERS.
    K. TEST REPORTS FROM CERTIFIED LABORATORY ON AMENDED SOILS.
    L. MANUFACTURER'S CERTIFICATE OF CHEMICAL COMPOSITION FOR ALL FERTILIZERS INCLUDING PERCENTAGE AND DERIVATION OF NITROGEN, PHOSPHORUS, POTASSIUM AND MICRO-NUTRIENTS.
    M. WRITTEN DOCUMENTATION OF WEED CONTROL PROGRAM.
    N. PROPOSE SEQUENCE AND DURATION OF INSTALLATION BY ZONE.
    O. WRITTEN PLAN FOR EMERGENCY UTILITY SERVICE REPAIR.

3. THE LANDSCAPE CONTRACTOR IS REQUIRED TO SUBMIT EACH OF THE FOLLOWING TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL A MINIMUM OF TEN DAYS PRIOR TO FINAL WALK THROUGH :

    A. 'AS-BUILT' RECORD DOCUMENTS OF INSTALLATION (3 SETS) IDENTIFYING ANY DEVIATIONS FROM CONSTRUCTION PLANS. THESE PLANS ARE TO BE UPDATED BY THE CONTRACTOR AT LEAST WEEKLY THROUGHOUT THE CONSTRUCTION PERIOD FOR INFORMAL PROGRESS REVIEW BY THE PROJECT MANAGER.
    B. WRITTEN RECOMMENDATIONS FOR ONGOING MAINTENANCE PROGRAM (3 COPIES).

LANDSCAPE MATERIALS

1. ALUMINUM SULFATE: SUITABLE FOR HORTICULTURAL PURPOSES, SHALL BE RECOGNIZED MANUFACTURER'S STANDARD, COMMERCIAL GRADE.

2. ANTI-DESSICANT: 'WILT-PRUF', 'DOWWAX', 'FOLIGARD' OR PROJECT MANAGER APPROVED EQUAL. APPLY BE MANUFACTURER'S RECOMMENDATIONS.

3. BURLAP: BURLAP USED IN ALL 'B&B' NURSERY STOCK MUST BE OF 100% BIODEGRADABLE, NATURAL FIBER PER ANSI Z-60.1. ABSOLUTELY NO SYNTHETIC FABRIC (i.e. LENO) WILL BE PERMITTED. ALL B&B MATERIAL SHALL BE SOURCED FROM NURSERIES ASSOCIATED WITH 'ROOTS PLUS'.

4. DOLOMITE: GROUND LIMESTONE CONTAINING NO LESS THAN 85% OF TOTAL CARBONATE AND GROUND TO A SIZE SUCH THAT 50% WILL PASS THROUGH A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 200 MESH SIEVE.

5. FERTILIZER TABLETS: 3/4 OUNCE, SLOW RELEASE, 'AGRIFORM' PLANTING TABLET AS MANUFACTURED BY SIERRA CHEMICAL COMPANY THAT CONSISTS OF THE FOLLOWING PERCENTAGES BY WEIGHT : 20% NITROGEN, 10% PHOSPHORIC ACID AND 5% POTASH. APPLY AT A RATE PER MANUFACTURER'S RECOMMENDATION OR THE FOLLOWING MINIMUMS:

    A. A) ONE TABLET PER 1/2 IN OF TREE CALIPER.
    B. B) ONE TABLET PER 1 GALLON SHRUB CONTAINER.
    C. C) TWO TABLETS PER 2 GALLON SHRUB CONTAINER.
    D. D) THREE TABLETS PER 5 GALLON SHRUB CONTAINER.
    E. E) FOUR TABLETS PER 7 GALLON SHRUB CONTAINER.
    F. F) FIVE TABLETS PER 10 GALLON SHRUB CONTAINER.

6. FRICTION GUARD: NEW, MINIMUM 1/2 IN INSIDE DIAMETER, REINFORCED, 2-PLY, BLACK RUBBER HOSE.

7. GUY WIRE: WIRE SHALL BE 10 GAUGE ANNEALED, GALVANIZED IRON. EACH WIRE IS TO BE DEMARCATED WITH WHITE SURVEYOR'S TAPE.

8. MULCH: CONTRACTOR TO SUBMIT SAMPLE IN ONE QUART BAG OF LOCALLY USED MULCH. MUST BE FREE OF WEED, SEED, FUNGUS, ROCKS, HERBICIDES AND OTHER DELETERIOUS MATERIALS. BALED SPECIFICALLY FOR HORTICULTURAL USE.

9. OSMOCOTE: TIME CONTROL RELEASE FERTILIZER AS MANUFACTURED BY SIERRA CHEMICAL COMPANY.

10. PEAT: MILLED CANADIAN SPHAGNUM PEAT, MIN. 90% ORGANIC, LOW SALT, LOW ALKALINITY, LIGHT BROWN AND FIBROUS, FREE OF ROCKS AND EXCESSIVE STICKS. CONSISTENT pH LEVEL BETWEEN 4.0 AND 5.0. HAVING NO PARTICLES GREATER THAN 1/2 IN DIAMETER.

11. PERLITE: COARSE OR NO. 2 PERLITE, FREE OF WEEDS AND IMPURITIES.

12. PRE-EMERGENT HERBICIDE: COMMERCIAL GRADE, COMBINATION OF SURFLAN AND GALLERY WITH A DYE MARKER. APPLY PER MANUFACTURER'S RECOMMENDATIONS.

13. SAND: MEDIUM-COARSE SAND, FREE DRAINING, WITH FINE PLUS VERY FINE RATION NOT TO EXCEED 25% BY VOLUME.

14. SOIL FUMIGANT: BASAMID GRANULAR APPLIED PER MANUFACTURER'S RECOMMENDATIONS IN ALL AREAS TO RECEIVE SOD.

15. TREE GUYS: 'TREE SAVER' AS MANUFACTURED BY LAWSON LANDSCAPE PRODUCTS.

16. TREE STAKES: NEW, MINIMUM 2 IN DIA. X 8 FT PRESSURE TREATED LODGE POLE PINE POINTED AT ONE END. A MINIMUM OF 50% OF POLE IS TO BE IMBEDDED.

17. TREE TIES: 'CINCH TIES', 3' AS MANUFACTURED BY V.I.T. PRODUCTS INC.

18. TRIPLE SUPER PHOSPHATE: GRANULAR COMMERCIAL GRADE, 42-47% P205.

19. TURNBUCKLES: 6 IN LONG, GALVANIZED STEEL TO BE HAND TIGHTENED.

20. REWETTING AGENT: 'SATURAID' AS MANUFACTURED BY FLORIKA E.S.A. CORP.

21. WATER: COMPLETED IRRIGATION SYSTEM WATER WILL BE SUPPLIED THROUGH A DEEP WELL. WATER USED FOR LANDSCAPING PRIOR TO ACTIVATION OF SYSTEM IS TO BE CLEAN, FREE OF SUBSTANCES HARMFUL TO THE GROWTH OF PLANTS. WATER SHOULD BE FREE OF STAINING AGENTS AND ODOR.

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LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL THE REQUIREMENTS STATED UNDER GENERAL REQUIREMENTS AND CONDITIONS AS WELL AS THE SPECIFIC CRITERIA OUTLINED HEREIN AND ON THE LANDSCAPE DRAWINGS.

2. THE SCOPE OF WORK FOR THE LANDSCAPE CONTRACTOR FOR THIS PROJECT SHALL INCLUDE THE PROVISION OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE ALL TASKS ASSOCIATED WITH THE LANDSCAPE AND IRRIGATION INSTALLATION AS SHOWN ON THE DRAWINGS OR NOTED HEREIN. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE CONSTRUCTION MANAGER REASONABLE ACCESS TO POWER AND POTABLE WATER SOURCES AS REQUIRED.

3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL WORK (INCLUDING DELIVERY, STORAGE AND DISPOSAL OF THEIR MATERIALS) IS PERFORMED IN COMPLIANCE WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THE WORK

4. THE LANDSCAPE CONTRACTOR SHALL ASSIGN A QUALIFIED PROJECT MANAGER AND FIELD SUPERVISOR TO WORK DIRECTLY WITH THE LANDSCAPE ARCHITECT AND SUPERVISE THE WORK AT ALL TIMES THROUGH FINAL PROJECT MANAGER ACCEPTANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PROJECT MANAGER HAS A COMPLETE, CURRENT SET OF DOCUMENTS ON-SITE AT ALL TIMES.

5. THE LANDSCAPE CONTRACTOR FOR THIS PROJECT MUST BE ABLE TO DOCUMENT A MINIMUM OF FIVE (5) YEARS OF COMPARABLE EXPERIENCE IN THE INSTALLATION OF PLANT MATERIAL FOR PROJECTS IN THE PROJECT AREA OF SIMILAR SCALE, INTENSITY AND QUALITY. CONSTRUCTION MANAGER MUST SUBMIT DOCUMENTATION TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO BID AWARD.

6. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH EXISTING SITE CONDITIONS AND NOTIFYING THE PROJECT MANAGER IN WRITING OF ANY CONCERNS PRIOR TO COMMENCEMENT OF WORK. THIS EVALUATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, VERIFICATION OF SURFACE AND SUBSURFACE UTILITIES, GRADES, DIMENSIONS AND SOIL CONDITIONS.

7. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH PROJECT PLANS AND SCOPES OF WORK RELATED TO ASSOCIATED TRADES TO BE PERFORMED BY OTHERS IN ORDER TO IDENTIFY KEY COORDINATION ITEMS INCLUDING, BUT NOT LIMITED TO, SITE ACCESS, MATERIAL STORAGE, SCHEDULING AND SEQUENCING OF WORK. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SITE ISSUES WITH THE CONSTRUCTION MANAGER.

8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT WORK, MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO THEIR ACTIVITIES. THE LANDSCAPE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY THAT MAY OCCUR AS A RESULT OF THEIR EXECUTION OF THEIR WORK.

9. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE AREA, MATERIALS AND EQUIPMENT WITHIN THE LIMITS OF WORK IN A SAFE, NEAT AND ORDERLY MANNER. EXCESS MATERIALS AND DEBRIS ARE TO BE REMOVED FROM THE WORK AREA NO LESS THAN WEEKLY OR AS DIRECTED BY THE CONSTRUCTION MANAGER.

10. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WORK ACTIVITIES WITHIN THE LIMITS OF WORK AND PERFORMING WORK AT TIMES, AND IN A MANNER, AS PRESCRIBED BY THE CONSTRUCTION MANAGER.

11. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ANY EXCAVATION IN THE VICINITY OF PRE-EXISTING OR NEWLY INSTALLED UTILITIES WITH THE CONSTRUCTION MANAGER. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO NOTIFY ALL NECESSARY UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES AND OTHER ELEMENTS. THE CONTRACTOR MUST COORDINATE WITH THE CONSTRUCTION MANAGER PRIOR TO INITIATING OPERATIONS EMERGENCY REPAIR PLANS AND ANY POSSIBLE SERVICE INTERRUPTION(S) ON-SITE AND OFF. THE LANDSCAPE CONTRACTOR SHALL BEAR THE SOLE RESPONSIBILITY OF ANY DAMAGE TO SUBSURFACE UTILITIES CAUSED BY THEIR WORK. RETURN OF SERVICES TO OFF-SITE AREAS (IF ANY) MUST BE IMMEDIATE.

12. THE LANDSCAPE CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT ALL EXISTING SITE ROADS, PARKING LOTS, CURBS AND UTILITIES FROM DAMAGE. THIS APPLIES NOT ONLY TO THE AREA WITHIN THE LIMITS OF WORK BUT ALSO ALONG ANY LOCAL ACCESS ROADS

13. THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.

14. THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH CONSTRUCTION MANAGER TO ENSURE THAT TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES (SILT FENCE, ORANGE GEO FENCE AND/OR OTHER MEASURES) ARE INSTALLED PRIOR TO BEGINNING EXCAVATION.

15. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PLANT MATERIALS AND THE PLANTING AREAS UNTIL FINAL ACCEPTANCE BY THE PROJECT MANAGER.

16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE AGRONOMIC EVALUATION OF SOIL CHARACTERISTICS. EVALUATION MUST INCLUDE CHEMICAL ANALYSIS BY A QUALIFIED AGRICULTURAL SOILS TESTING LABORATORY (CERTIFIED IN JURISDICTION OF PROJECT). SOILS SAMPLE SHOULD BE TAKEN IMMEDIATELY FOLLOWING COMPLETION OF ROUGH GRADING ACTIVITIES AND SHOULD BE COLLECTED AT A RATE ON ONE SAMPLE FOR EACH 5,000 SQUARE FEET OF IMPACTED AREA, OR A TOTAL OF SIX, WHICHEVER IS GREATER. AT A MINIMUM THE CHEMICAL ANALYSIS OF THE SOIL SHOULD CONSIDER THE FOLLOWING:

    A. PERCENTAGE OF ORGANIC MATTER
    B. SALINITY
    C. pH
    D. LIME CONTENT
    E. MINERAL NUTRIENTS INCLUDING CONCENTRATIONS OF NITROGEN, PHOSPHOROUS, POTASSIUM. CALCIUM, MAGNESIUM, IRON, ZINC, MANGANESE, COPPER, SULFUR AND MOLYBDENUM.
    F. POTENTIAL HAZARDS OR IMPEDIMENTS FOR PLANT GROWTH INCLUDING SALINITY, SODIUM CHLORIDE, BORON, IMPAIRED SOIL STRUCTURE OR DRAINAGE.
    G. SAND FRACTION ANALYSIS AS A % PASSING THROUGH 1IN, 2IN AND NO. 200 SIEVES.
    H. PERCOLATION RATE IN INCHES PER HOUR.
    I. THE ANALYSIS SHOULD ALSO INCLUDE SPECIFIC RECOMMENDATIONS TO THE PROJECT MANAGER FOR ANY AMENDMENTS AND BACKFILL MIXES FOR OPTIMAL PLANT GROWTH TO BE MADE TO THE SOILS PRIOR TO PLANTING. THE CONTRACTOR SHOULD INCLUDE THE COST OF THIS SOIL TESTING IN THEIR BASE BID AS WELL AS THE BASIC BACKFILL MIXES SPECIFIED HEREIN BUT SHOULD NOT INCLUDE ANY ANTICIPATED COST FOR SOIL AMENDMENT. THE CONTRACTOR IS TO PROVIDE THE PROJECT MANAGER WITH COPIES OF ALL SOIL TESTING RESULTS. SUBMITTAL DOCUMENTATION MUST ALSO CONTAIN A GRAPHIC SITE PLAN DEPICTING LOCATIONS FROM WHICH EACH SAMPLE WAS DRAWN.

18. LANDSCAPE CONTRACTOR TO CONFIRM WATER QUALITY & ASSESS PLANT SPECIES RECOMMENDATIONS AS TO THEIR APPROPRIATENESS FOR ANY ADVERSE CONDITIONS

19. THE LANDSCAPE CONTRACTORS BASE BID FOR SOIL PREPARATION IS TO INCLUDE THE FOLLOWING WITH THE UNDERSTANDING THAT MIX DESIGN MAY NEED TO BE ADJUST BASED ON OUTCOME OF AGRONOMIC TESTING.

    A. TREES: 100% SITE SOIL WITH 4 LBS. TRIPLE SUPER PHOSPHATE PER CUBIC YARD.
    B. SHRUBS: 100% SITE SOIL WITH OSMOCOTE CONTROLLER RELEASE FERTILIZER (14-14-14) PER MANUFACTURER'S RECOMMENDATION.

20. SHOULD PROJECT MANAGER AND CONTRACTOR AGREE WITH THE RECOMMENDATION OF THE TESTING AGENCY TO FURTHER AMEND THE SOILS THE CONTRACTOR'S CONTRACT WILL BE ADJUSTED ACCORDINGLY. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT SAMPLES OF AMENDED SOILS TO BE RE-TESTED TO CONFIRM COMPLIANCE WITH RECOMMENDATIONS FOLLOWING THE SAME PROCEDURES AS THE ORIGINAL TESTS.

21. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS WITHIN THIRTY(30) DAYS OF PROJECT AWARD. ALL REQUESTS FOR SUBSTITUTION DUE TO LACK OF AVAILABILITY MUST BE MADE TO THE PROJECT MANAGER IN WRITING WITHIN THIS PERIOD. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE PROJECT MANAGER. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED PRIOR TO REQUESTING SUBSTITUTION. IN ORDER TO BE CONSIDERED BY THE PROJECT MANAGER AS VIABLE ALTERNATES PLANTS MUST SHARE THE SAME GENERAL APPEARANCE, FORM, INSTALLATION SIZE, MATURE SIZE, COLOR, QUALITY AND GROWTH HABIT. MATERIALS MUST BE OFFERED AT NO ADDITIONAL COSTS TO THE PROJECT MANAGER.

22. PLANT SPECIES RECOMMENDATION AS SPECIFIED BY THE LANDSCAPE ARCHITECT ARE BASED ON AVAILABLE DATA RELATED TO THE SOILS AND WATER QUALITY AT THE TIME OF DESIGN. LANDSCAPE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SURVIVAL OF PLANT MATERIAL AND MUST COORDINATE ANY CHANGES TO THE PROPOSED PLANT LIST SPECIFICATIONS WITH THE PROJECT MANAGER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ADVERSE SOIL OR WATER QUALITY WILL NOT NULLIFY CONTRACTOR'S WARRANTY OF PLANT MATERIAL.

23. THE PROJECT MANAGER RESERVES THE RIGHT TO REVIEW AND APPROVE ALL PLANT MATERIALS, INCLUDING SOD, AT THEIR SOURCE NURSERY WITH THE LANDSCAPE CONTRACTOR PRIOR TO DELIVERY TO THE JOB SITE. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO COORDINATE AND SCHEDULE ALL NURSERY TRIPS WITH THE PROJECT MANAGER OR THEIR ASSIGNED REPRESENTATIVE A MINIMUM OF TWO WEEKS PRIOR TO THE SCHEDULE DATE FOR MATERIAL DELIVERY TO THE JOB SITE. THE LANDSCAPE CONTRACTOR IS TO PROVIDE A MINIMUM OF SEVENTY-TWO (72) HOURS NOTICE TO THE PROJECT MANAGER FOR ALL TRIPS. THE PROJECT MANAGER ALSO RESERVES THE RIGHTS TO WAIVE THE NURSERY REVIEW OF MATERIAL OR TO PROVIDE APPROVAL THROUGH REVIEW OF PHOTOGRAPHS OR REPRESENTATIVE SAMPLES.

24. ALL PLANT MATERIAL SUPPLIERS, INCLUDING SOD, FOR THIS PROJECT MUST BE ABLE TO DOCUMENT A MINIMUM OF FIVE (5) YEARS OF EXPERIENCE IN THE SPECIALIZATION OF GROWING AND CULTIVATION OF COMPARABLE MATERIALS AS SPECIFIED FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING DOCUMENTATION TO THE PROJECT MANAGER FOR APPROVAL PRIOR TO PROCURING MATERIAL.

25. IN PREPARATION FOR THE DELIVERY TO THE SITE THE LANDSCAPE CONTRACTOR SHALL ONLY PRUNE BRANCHES OR ROOTS AFTER NOTIFYING PROJECT MANAGER. PRUNING SHOULD ONLY BE PREFORMED AS REQUIRED TO ASSURE SAFE LOADING, SHIPPING AND JOB SITE HANDLING. IN NO CASE CAN ANY TREE BE TOPPED. PRIOR TO SHIPPING ALL TREES SHOULD BE SPRAYED FOR INSECTS AND FUNGUS AS WELL AS A FOLIAR ANTI-DESSICANT.

26. BALLED AND BURLAP TREES SHOULD BE DUG AND PREPARED FOR SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE AND FUTURE DEVELOPMENT AFTER PLANTING. TREES SHOULD BE ROOT PRUNED 30 DAYS PRIOR TO DIGGING AND HARDENED OFF AT THE NURSERY FOR A MINIMUM OF 30 DAYS PRIOR TO SHIPPING. IN ADDITION TO ROOT BALL IRRIGATION THE NURSERY SHOULD PROVIDE OVERHEAD MIST IRRIGATION FOR THE DURATION OF THIS PERIOD. THE PRODUCT RECEIVED ON-SITE SHOULD HAVE A FIRM BALL WITH NATURAL SOILS. DRIED, CRACKED OR BROKEN ROOT BALLS WILL NOT BE ACCEPTED. ROOT BALLS SHOULD BE SIZED AT A MINIMUM DIA. RATIO OF 12 IN OF ROOT BALL FOR EACH 1 IN OF TREE CALIPER.

27. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF SOILS WITHIN ALL PLANTING AREAS INCLUSIVE OF PROVIDING ALL IMPORTED SOIL MATERIALS, SOIL AMENDMENTS, SOIL CONDITIONERS AND FERTILIZERS AS REQUIRED.

28. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERIES OF SOD SO THAT ALL DELIVERIES TO SITE WILL BE WITHIN 24 HOURS OF THE TIME SOD IS CUT IN THE FIELD AND INSTALLED NO MORE THAN 24 HOURS FROM THE TIME IT ARRIVES ON SITE. SOD SHOULD BE DELIVERED TO THE JOB SITE ON PALLETS. THE AMOUNT OF SOD DELIVERED TO THE SITE AT ANY ONE TIME SHOULD NOT EXCEED THE AMOUNT THAT CAN BE LAID UNDER THESE TIME CONSTRAINTS.

29. THE LANDSCAPE CONTRACTOR SHALL EXERCISE CARE IN THE PLACEMENT OF SOD TO AVOID TEARING AND STRETCHING OF PANELS. SOD SHOULD NOT BE DROPPED. SOD SHOULD BE LAID BUTT TIGHT WITH STAGGERED JOINTS BETWEEN PANELS RUNNING PARALLEL TO SLOPE CONTOURS. PANELS SHOULD BE FIT, OR CLEANLY CUT, SO THAT NO VISIBLE JOINT REMAINS. DO NOT OVERLAP PANELS. IN SLOPED SITUATIONS BEGIN LAYING SOD AT BASE OF SLOPE AND WORK UPHILL. ALL SOD SHOULD BE ROLLED AND FERTILIZED WITH A GRANULAR 16-4-8 FERTILIZER FIVE DAYS AFTER PLANTING. NEWLY LAID SOD SHALL BE KEPT MOIST FOR THE FIRST WEEK AFTER PLANTING AFTER WITH A WATERING RATE OF 2 IN PER WEEK, INCLUDING RAINFALL, SHOULD BE SUFFICIENT.

30. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ERADICATING WEEDS WITHIN THE LIMITS OF ALL PLANTING AREAS PRIOR TO BEGINNING LANDSCAPE INSTALLATION.

31. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PRETILLAGE TO SCARIFY SOILS IN ALL PLANTING AREAS TO A MINIMUM DEPTH OF 4 IN. DENSELY COMPACTED AREAS BETWEEN 85% AND 90% ARE TO BE CROSS RIPPED TO A MINIMUM 12 IN DEPTH. DENSELY COMPACTED AREAS IN EXCESS OF 90% MUST BE CROSS RIPPED TO A MINIMUM 24 IN DEPTH. IN THE PROCESS OF TILLING ARE UNACCEPTABLE MATERIALS INCLUDING, BUT NOT LIMITED TO, FOREIGN DEBRIS, CONSTRUCTION WASTE, ROOTS, CONCRETE, ASPHALT, PETROLEUM AND ROCKS GREATER THAN 2 IN DIA. ON AVERAGE. IN AREAS TO RECEIVE SOD TILL IN FERTILIZER TO A DEPTH OF 2 IN AT AT RATE OF 4 LBS OF NITROGEN PER 1000F^2.

32. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH ONE GALLON, SEALED AND LABELED BAG OF SOIL FROM SAME LOCATION THAT TEST SAMPLES WERE DRAWN. THE PROJECT MANAGER RESERVES THE RIGHT TO OBTAIN SECONDARY ANALYSIS TO CONFIRM TEST RESULTS AT THEIR EXPENSE.

33. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH ONE GALLON SEALED AND LABELED BAG OF ANY IMPORTED SOIL MATERIAL, AMENDMENT OR CONDITIONER USED IN THE PREPARATION OF THE PLANTING AREAS.

34. THE PROJECT MANAGER RESERVES THE RIGHT TO REVIEW AND APPROVE ALL PLANT MATERIAL AT THE JOB SITE PRIOR TO INSTALLATION TO ENSURE THAT THE DELIVERED STATE OF THE MATERIALS IS IN COMPLIANCE WITH THE MATERIAL SPECIFICATIONS CONTAINED HEREIN. IN THE ADVENT THAT DELIVERED MATERIAL DOES NOT COMPLY WITH THE PROJECT REQUIREMENTS THE PROJECT MANAGER RESERVES THE RIGHT TO REJECT SUCH MATERIALS AND REQUIRE THE LANDSCAPE CONTRACTOR TO REMOVE AND REPLACE REJECTED MATERIALS AT NO ADDITIONAL COST TO THE PROJECT MANAGER. THE LANDSCAPE CONTRACTOR SHALL REMOVE REJECTED PLANTS AND MATERIALS FROM THE PROJECT AREA WITHIN 48 HOURS AND REPLACE WITH ACCEPTABLE MATERIALS.

35. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH RECORD COPIES OF ALL SHIPPING RECEIPTS FOR ALL MATERIALS, INCLUDING SOD, DELIVERED TO THE PROJECT SITE. DELIVERY OF ALL FERTILIZER AND SOIL AMENDMENT MATERIALS MUST BE IN ORIGINAL, UNOPENED CONTAINER'S BEARING MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE MARK AND CONFORMANCE WITH LOCAL REGULATIONS.

36. THE CONTRACTOR SHALL STORE ALL MATERIALS IN AN AREA TO BE DETERMINED BY THE PROJECT MANAGER. ALL EXCESS STORED MATERIALS MUST BE REMOVED PRIOR TO FINAL ACCEPTANCE FROM THE PROJECT MANAGER.

37. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL PLANT MATERIALS IN THE FIELD IN ACCORDANCE WITH THE LANDSCAPE PLANS FOR APPROVAL BY THE PROJECT MANAGER PRIOR TO EXCAVATION AND INSTALLATION. THE LANDSCAPE CONTRACTOR SHALL PROVIDE STAKES OR FLAGS TO INDICATE LOCATIONS OF INDIVIDUAL TREES WHEREAS ALL SHRUB AND GROUNDCOVER MATERIALS MUST BE LAID OUT IN THEIR CONTAINERS WITH THE APPROPRIATE SPACING FOR PROJECT MANAGER REVIEW AND APPROVAL. THE PROJECT MANAGER RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS TO PLANT LAYOUT AS PART OF THIS REVIEW. FAILURE BY THE LANDSCAPE CONTRACTOR TO OBTAIN LAYOUT APPROVAL FROM THE PROJECT MANAGER PRIOR TO INSTALLATION MAY RESULT IN THE REMOVAL AND REINSTALLATION OF MATERIALS BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE PROJECT MANAGER.

38. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE SPECIFICATIONS AND DESCRIPTIONS CALLED FOR ON THE PLANTING PLANS. ALL PLANT MATERIAL MUST BE IN EXCELLENT QUALITY AND ADHERE TO THE HIGHEST INTERNATIONAL AGRICULTURAL STANDARDS.

39. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES AT TIME OF INSTALLATION. ALL CONTAINER AND TREE CALIPER SIZES ARE MINIMUM. CONTAINER OR CALIPER SIZE MAY BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED. MATERIAL HEIGHT AND WIDTH SPECIFIED IN LANDSCAPE SCHEDULE IS BASED ON BRANCHES IN THEIR NORMAL POSITION. SPECIFIED CALIPER IS TO BE MEASURED AT A POINT 12 IN ABOVE THE GROUND.

40. ALL PLANT MATERIAL MUST BE DELIVERED TO THE PROJECT SITE AND INSTALLED IN GOOD HEALTH, FREE OF PEST, PEST EGGS, FUNGUS AND DISEASE. ROOT SYSTEMS SHALL BE VIGOROUS AND FIBROUS, FILLING THE CONTAINER BUT SHALL NOT BE ROOT BOUND OR EXHIBIT SPIRALING ROOTS. VERIFICATION OF THE HEALTH AND VIGOR OF ALL PLANT MATERIAL IS THE SOLE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.

41. THE IRRIGATION SYSTEM IS DESIGNED TO MAINTAIN AN ESTABLISHED LANDSCAPE. THE CONTRACTOR SHALL NOT RELY ON IT AS THE NEW MATERIAL'S SOLE SOURCE OF WATER. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SUPPLEMENTAL IRRIGATION THROUGH HAND WATERING OR OTHER MEANS (INCLUDING TEMPORARY DRIP, WATER WANDS AND SOAKER HOSES) TO HELP ESTABLISH THE NEW AND SALVAGED MATERIAL. THE CONTRACTOR SHOULD CONTINUE TO MONITOR THE MOISTURE CONTENT FOR ALL TREES AND SHRUBS. USE CARE TO AVOID CREATING LARGE HOLES AND WATER JETTING.

42. THE LANDSCAPE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. VERTICAL DRILLING THROUGH HARDPAN AND COMPACTED FILL SHALL BE ACCOMPLISHED TO INSURE DRAINAGE.

43. THE PROJECT MANAGER RESERVES THE RIGHT TO DEFER ANY AND ALL REVIEW RESPONSIBILITIES RELATED TO LANDSCAPE TO THE PROJECT LANDSCAPE ARCHITECT OR OTHER AUTHORIZED AGENT.

44. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL PLANT MATERIAL TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION AS INDICATED ON THE PLANS. EXISTING TREES TO REMAIN SHALL BE UNDISTURBED AND PROTECTED BY BARRICADES ERECTED AT THE PERIMETER OF THE TREE DRIP LINE. NO VEHICLE SHALL TRAVERSE THIS AREA NOR SHALL ANY STORAGE OF MATERIALS OR EQUIPMENT BE PERMITTED WITHIN THIS PROTECTED AREA. THE CONTRACTOR SHALL BEAR THE SOLE RESPONSIBILITY OF REPLACEMENT FOR ANY DAMAGE TO PROTECTED MATERIALS CAUSED BY CONSTRUCTION ACTIVITY WITHOUT ADDITIONAL COSTS TO THE PROJECT MANAGER.

45. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING THE STABILITY AND PLUMB CONDITION OF ALL INSTALLED PLANT MATERIALS UNTIL RECEIVING FINAL ACCEPTANCE FROM THE PROJECT MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY PLANT MATERIAL WHICH IS DAMAGED DUE TO INADEQUATE GUYING OR STAKING, AT NO ADDITIONAL COST TO THE PROJECT MANAGER. THE CONTRACTOR SHALL REMOVE ALL STAKING MATERIALS AT THE END OF THE WARRANTY PERIOD AND DISPOSE OF PROPERLY OFFSITE.

46. THE LANDSCAPE CONTRACTOR SHALL GRANT THE PROJECT MANAGER THE FOLLOWING WARRANTY FOR FOR A PERIOD OF ONE YEAR (365 DAYS) FROM THE DATE OF FINAL ACCEPTANCE FOR ALL TREES, SHRUBS AND GROUNDCOVERS. THE WARRANTY PERIOD FOR SOD SHALL BE SIX MONTHS (180 DAYS). IT IS UNDERSTOOD THAT THE WARRANTY IS TO BE INCLUSIVE OF ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE REPLACEMENT OF ANY PLANT MATERIALS REQUIRED. WARRANTY IS INTENDED TO COVER DEFECTS AND UNSATISFACTORY GROWTH CAUSED BY NO FAULT OF THE PROJECT MANAGER. DURING THE WARRANTY PERIOD THE LANDSCAPE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO REPLACE ANY DEAD, DYING OR DISEASED MATERIAL WITHIN A PERIOD OF 10 WORKING DAYS

47. SHOULD THE LANDSCAPE CONTRACTOR BE REQUIRED TO REPLACE ANY DAMAGED, DISEASED, DYING OR DEAD PLANT MATERIAL IT IS UNDERSTOOD THAT THE REPLACEMENT MATERIAL IS TO BE OF THE SAME SPECIES, SIZE AND QUALITY AS THAT ORIGINALLY SPECIFIED AND APPROVED BY THE PROJECT MANAGER. REPLACEMENT WITH ALTERNATE MATERIALS WILL BE PERMITTED ONLY WITH PRIOR WRITTEN APPROVAL FROM THE PROJECT MANAGER. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ALL MATERIALS AND LEAVING THE IMPACTED AREA CLEAN FOLLOWING ANY REMEDIAL ACTION.

48. AT THE END OF THE WARRANTY PERIOD THE PROJECT MANAGER RESERVES THE RIGHT TO HAVE THE CONTRACTOR REPLACE ANY DECLINING MATERIAL OR REQUEST AN EXTENSION OF UP TO NINETY DAYS ON ANY SPECIFIC MATERIAL.

49.

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LANDSCAPE NOTES

JOB #: 20160058

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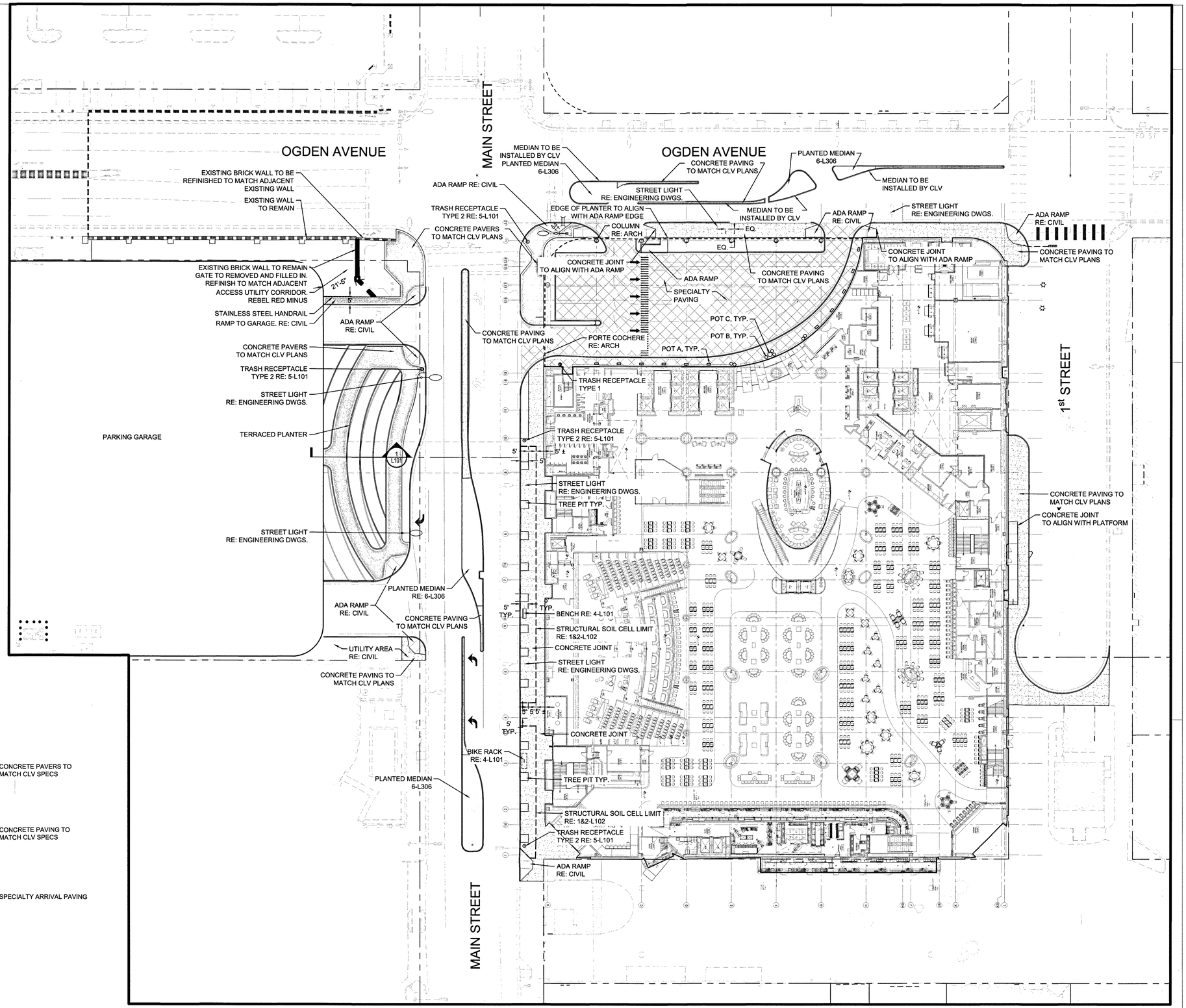
SCALE: PER VIEW

SHEET:

L004

20

10W7521 L18-02490



SITE LEGEND

- TRASH RECEPTACLE TYPE 1 / TYPE 2 RE: 4-L109
- BENCH RE: 3-L109
- POT TYPE 1
- POT TYPE 2
- POT TYPE 3
- BIKE RACK RE: 5-L109
- CONCRETE PAVERS TO MATCH CLV SPECS
- CONCRETE PAVING TO MATCH CLV SPECS
- SPECIALTY ARRIVAL PAVING

1 SITE LAYOUT PLAN

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21
L100

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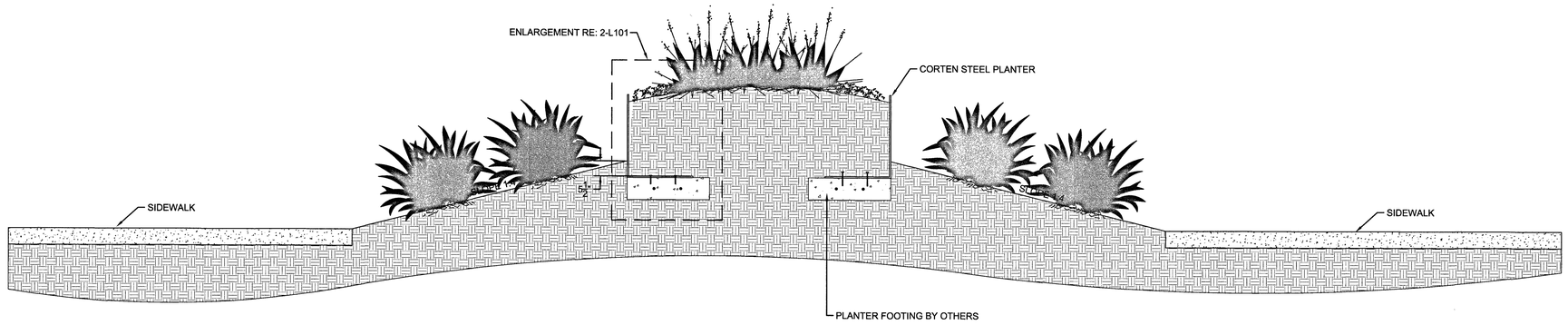

1 STEEL PLANTER SECTION
SECTION

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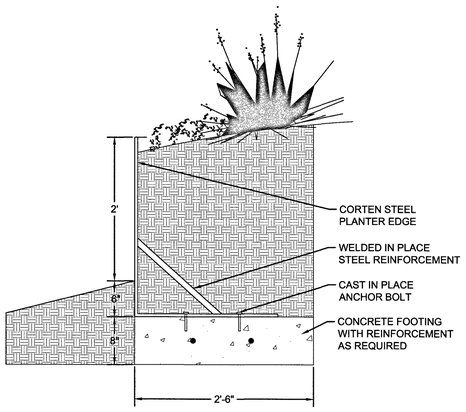
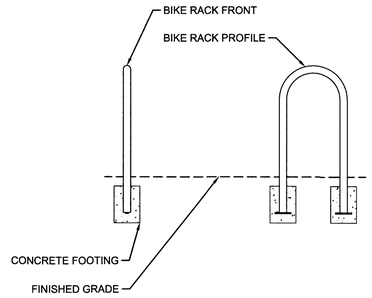


2 STEEL PLANTER DETAIL
DETAIL

SCALE: 1"=1'-0"

NOTE:
1. RACKS SHALL BE LOCATED A MINIMUM OF 6-FEET FROM ANY ABOVE GROUND UTILITY SUCH AS FIRE HYDRANTS, STREET LIGHTS, AND TRANSFORMERS.
2. RACKS SHALL BE LOCATED A MINIMUM OF 4-FEET FROM ANY FIRE DEPARTMENT CONNECTION AND FROM ANY IN-GROUND UTILITY VAULT, COVER, BOX OR OTHER SURFACE FEATURE.
3. EMBEDMENT MONT IN NEW SIDEWALK OR SURFACE MOUNT IN EXISTING SIDEWALK
4. SEE CLV SPECIFICATIONS AND INSTALL PER MANUFACTURE'S SPECIFICATIONS



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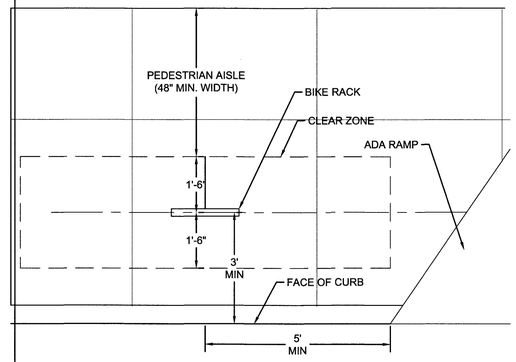
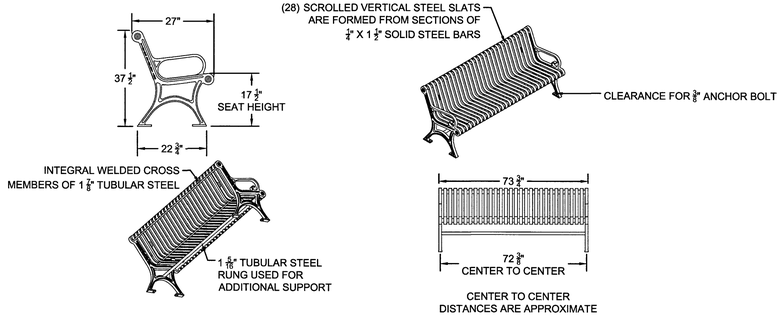


PLAN

3 BIKE RACK
SECTION / PLAN

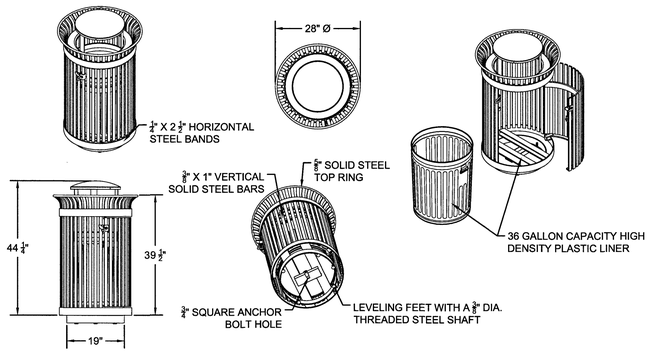
SCALE: 1/2"=1'-0"



NOTE: SEE CLV SPECIFICATIONS AND INSTALL PER MANUFACTURE'S SPECIFICATIONS. STANDARD BENCH WITH DUCTILE IRON END FRAMES SHOWN: STANDARD 6' LENGTH

4 BENCH TYPE 1
DRAWING

SCALE: 1/2"=1'-0"



NOTE: SEE CLV SPECIFICATIONS AND INSTALL PER MANUFACTURE'S SPECIFICATIONS. 36 GALLON SIDE DOOR OPENING LITTER RECEPTACLE WITH DOME LID SHOWN

5 TRASH RECEPTACLE TYPE 2
DRAWING

SCALE: 1/2"=1'-0"

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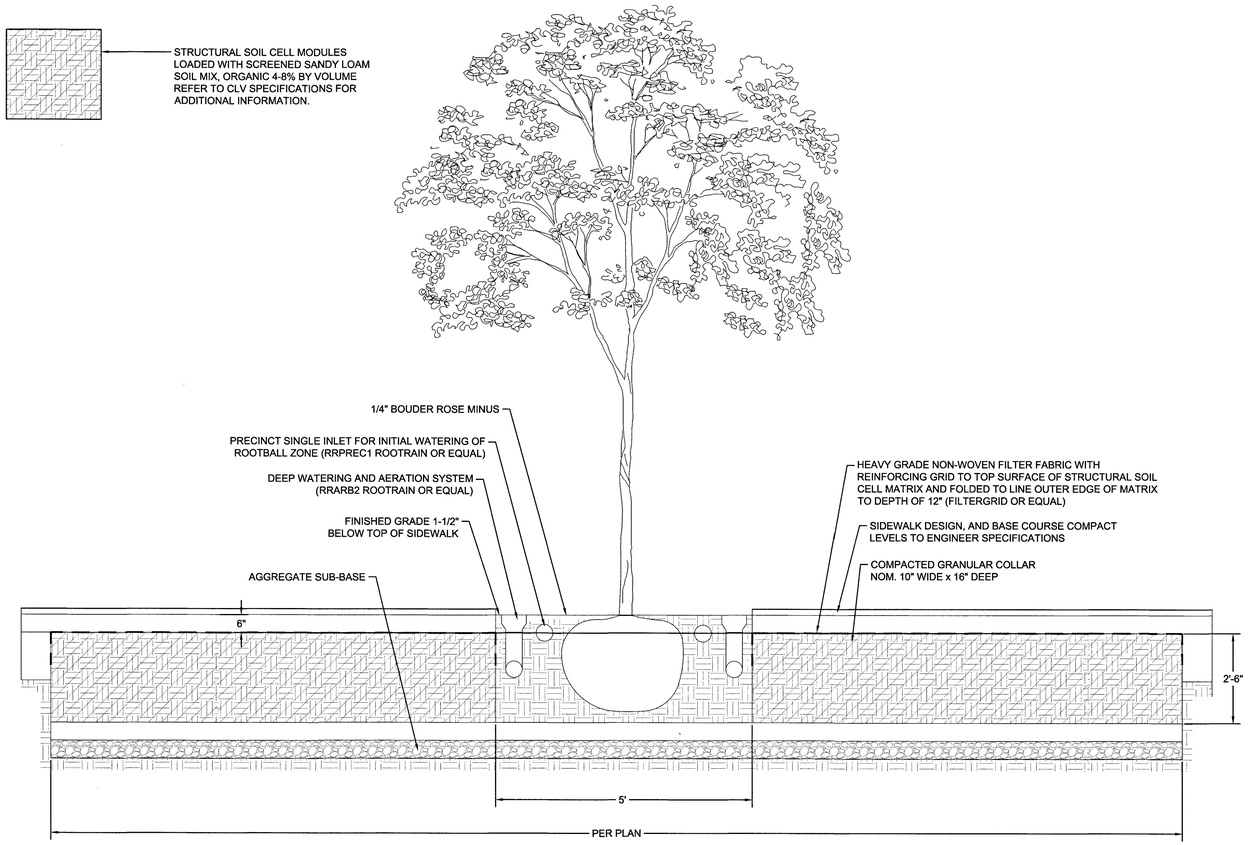
L101

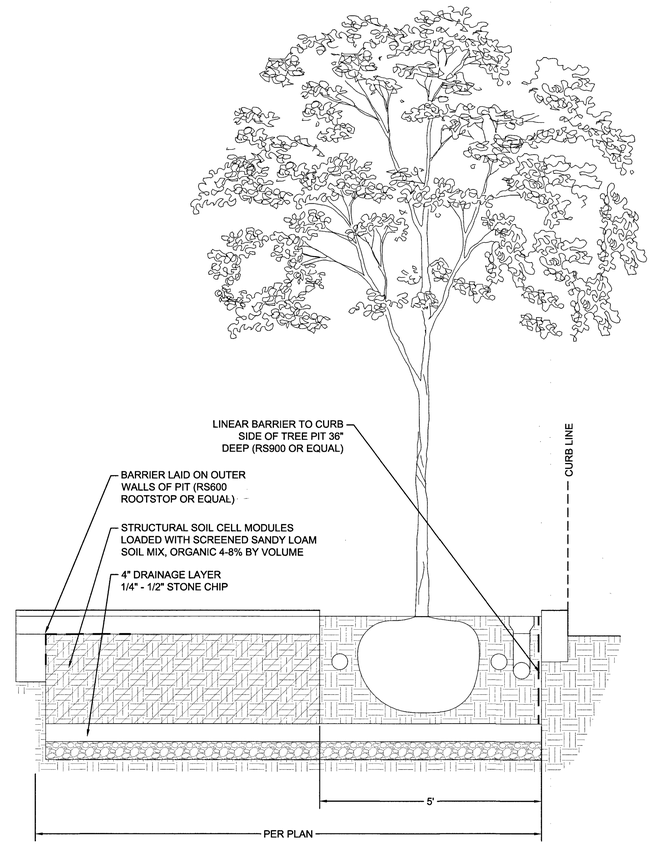
10747521 L18-03490

HATCH KEY

STRUCTURAL SOIL CELL MODULES LOADED WITH SCREENED SANDY LOAM SOIL MIX, ORGANIC 4-8% BY VOLUME REFER TO CLV SPECIFICATIONS FOR ADDITIONAL INFORMATION.



SECTION A - PARALLEL TO MAIN ST.



SECTION B - PERPENDICULAR TO MAIN ST.

1 STRUCTURAL SOIL CELLS
SECTION

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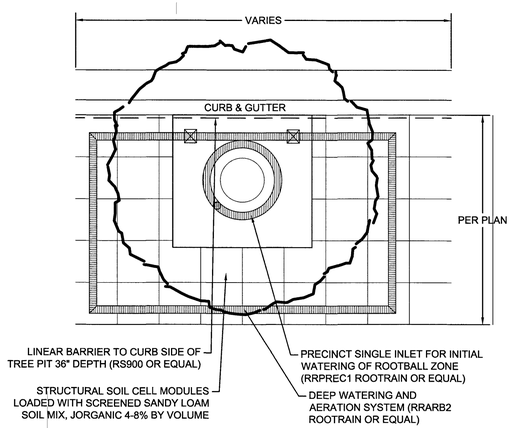

2 STRUCTURAL SOIL CELLS
PLAN

NTS

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L102

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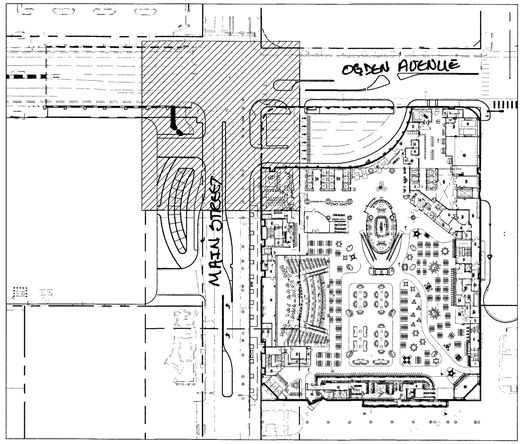


ENLARGEMENT KEY

LANDSCAPE SCHEDULE		
SYM.	**BOTANICAL NAME**	**COMMON NAME**
AE	Aspidestra elatior	Cast Iron Plan
AS	*Agave salmiana var. Ferox*	Ferox Agave
AJ	*Aucuba japonica 'Varigata'*	Gold Dust Plant
AV	*Abronia villosa*	Desert Sand Verbena
CE	*Calliandra eriophylla*	Pink Fairy Duster
CH	*Chamaerops humilis*	European Fan Palm
CI	*Cistus x hybridus*	White Rock Rose
CR	*Cycas revoluta*	Sago Palm
EG	*Echinocactus grusonii*	Golden Barrel Cactus
FS	*Fouquieria splendens*	Ocotillo
GR	*Bouteloua gracilis*	Blue Grama
GZ	*Gazania linearis*	Treasure Flower
LC	*Lantana camera*	Bush Lantana
LJ	*Ligustrum japonicum*	Wax Leaf Privit
LM	*Lantana montevidensis*	Trailing Lantana
LZ	*Leucophyllum zygophyllum*	Blue Texas Ranger Sage
MR	*Muhlenbergia reverchonii*	Autumn Embers Muhly Grass
PR	*Pistacia x 'Red Push'*	Red Push Chinese Pistache
SS	*Sedum spurium 'John Creech'*	John Creech Stonecrop
WR	*Washingtonia robusta*	Mexican Fan Palm
ROCK AND STONE SCHEDULE		
SYM.	**NAME**	**SPECIFICAITON**
	Boulder Rose Boulder	2'-4' Per Plan 50%
	Rebel Red Boulder	2'-4' Per Plan 50%
BR	Boulder Rose Chunky	2"-4"
RR	Rebel Red Minus	1/2"-3/4"
BRM	Boulder Rose Minus	1/4"

SCHEDULE

PLANTING LEGEND

RR - REBEL RED MINUS

BRM - BOULDER ROSE MINUS

BR - BOULDER ROSE CHUNKY

SS - *Sedum spurium 'John Creech'*

AV - *Abronia villosa*

AV - *Abronia villosa*

LC - *Lantana camera*

PR -Pistacia x 'Red Push'

WR - *Washingtonia robusta*

FS - *Fouquieria splendens*

CH - *Chamaerops humilis*

CR - *Cycas revoluta*

AS - *Agave salmiana var. Ferox*

CI - *Cistus x hybridus*

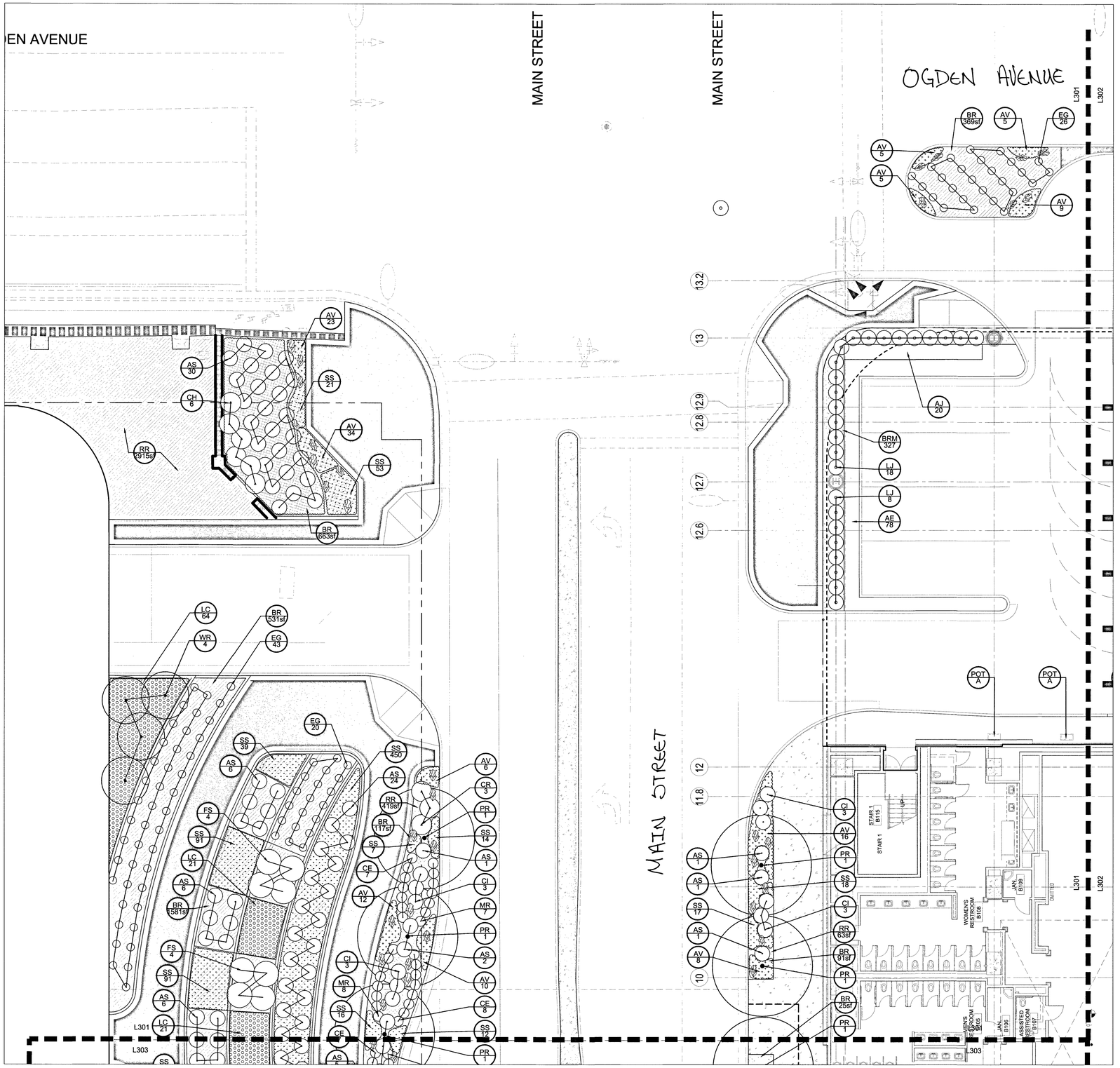
MR - *Muhlenbergia reverchonii*

CE - *Calliandra eriophylla*

EG - *Echinocactus grusonii*

BOUNDER

LEGEND



1 SITE LANDSCAPE ENLARGEMENT
PLAN

SCALE 1"=10'-0"

NORTH

SCALE 1"=10'-0"
0 10 ft 20 ft 400 ft

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JOB #: 20160058

ISSUED FOR:

ISSUE DATE: 04/08/2019

SCALE: PER VIEW

SHEET:

24

L301

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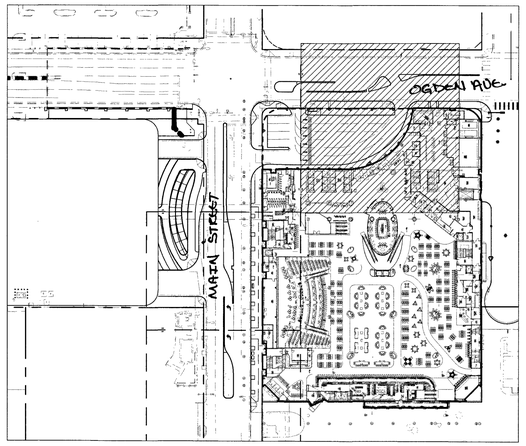

ENLARGEMENT KEY

LANDSCAPE SCHEDULE		
SYM.	**BOTANICAL NAME**	**COMMON NAME**
AE	Aspidestra elatior	Cast Iron Plan
AS	*Agave salmiana var. Ferox*	Ferox Agave
AJ	*Aucuba japonica 'Varigata'*	Gold Dust Plant
AV	*Abronia villosa*	Desert Sand Verbena
CE	*Calliandra eriophylla*	Pink Fairy Duster
CH	*Chamaerops humilis*	European Fan Palm
CI	*Cistus x hybridus*	White Rock Rose
CR	*Cycas revoluta*	Sago Palm
EG	*Echinocactus grusonii*	Golden Barrel Cactus
FS	*Fouquieria splendens*	Ocotillo
GR	*Bouteloua gracilis*	Blue Grama
GZ	*Gazania linearis*	Treasure Flower
LC	*Lantana camera*	Bush Lantana
LJ	*Ligustrum japonicum*	Wax Leaf Privit
LM	*Lantana montevidensis*	Trailing Lantana
LZ	*Leucophyllum zygophyllum*	Blue Texas Ranger Sage
MR	*Muhlenbergia reverchonii*	Autumn Embers Muhly Grass
PR	*Pistacia x 'Red Push'*	Red Push Chinese Pistache
SS	*Sedum spurium 'John Creech'*	John Creech Stonecrop
WR	*Washingtonia robusta*	Mexican Fan Palm
ROCK AND STONE SCHEDULE		
SYM.	**NAME**	**SPECIFICAITON**
	Boulder Rose Boulder	2'-4' Per Plan 50%
	Rebel Red Boulder	2'-4' Per Plan 50%
BR	Boulder Rose Chunky	2"-4"
RR	Rebel Red Minus	1/2"-3/4"
BRM	Boulder Rose Minus	1/4"

SCHEDULE

PLANTING LEGEND

- RR - REBEL RED MINUS
- BRM - BOULDER ROSE MINUS
- BR - BOULDER ROSE CHUNKY
- SS - *Sedum spurium 'John Creech'*
- AV - *Abronia villosa*
- AV - *Abronia villosa*
- LC - *Lantana camera*
- PR -Pistacia x 'Red Push'
- WR - *Washingtonia robusta*
- FS - *Fouquieria splendens*
- CH - *Chamaerops humilis*
- CR - *Cycas revoluta*
- AS - *Agave salmiana var. Ferox*
- CI - *Cistus x hybridus*
- MR - *Muhlenbergia reverchonii*
- CE - *Calliandra eriophylla*
- EG - *Echinocactus grusonii*
- BOULDER

LEGEND

OGDEN AVENUE

L301 L302

EG 26 · AV 9 · AV 8 · BR 281sf · EG 19 · AV 7 · AV 9 · AV 4 · AV 6 · BR 142sf · EG 10 · AV 6

AE 3 · LJ 3 · BRM 62 · LJ 3 · AJ 75 · LJ 8 · AE 76 · BRM 331 · LJ 8 · LJ 8

POT A · POT A · POT A · POT A · POT A · POT B · POT C · POT B · POT A · POT A · POT A · POT A · POT A · POT B

OFFICE D132 · TR D130 · STAIR 2 D101 · CAN WASH D102 · BOH BAGGAGE D133 · BAGGAGE ST D124 · MGR D123 · VEST D125 · ST D126 · FRONT OFFICE D122 · VEST D135 · HIGH RISE ELEVATOR LOBBY B111 · MID RISE ELEVATOR LOBBY B102 · CASINO LOBBY D145 · RECEPTION D121 · ST D140 · SB · SA · SC · SD · SE · RECEIVING D107 · OMITTED · OMITTED · VIP CHECK IN D120

P12 P11 P7 P8 P9 P10 P3 P2 P1 P4 P5 P6

1 SITE LANDSCAPE ENLARGEMENT
PLAN

SCALE 1"=10'-0"

NORTH

SCALE 1"=10'-0"
0 10 ft 20 ft 400 ft

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JOB #: 20160058

ISSUED FOR:

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SHEET: 25 L302

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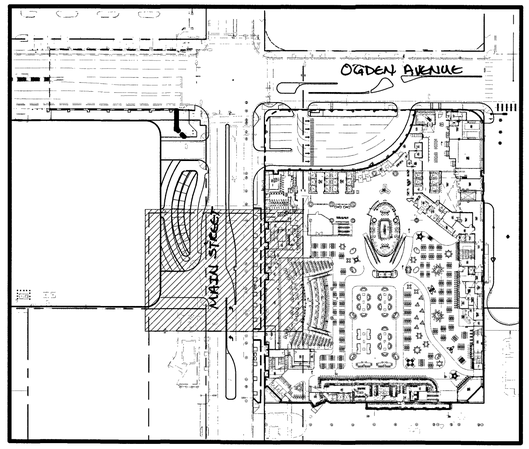


ENLARGEMENT KEY

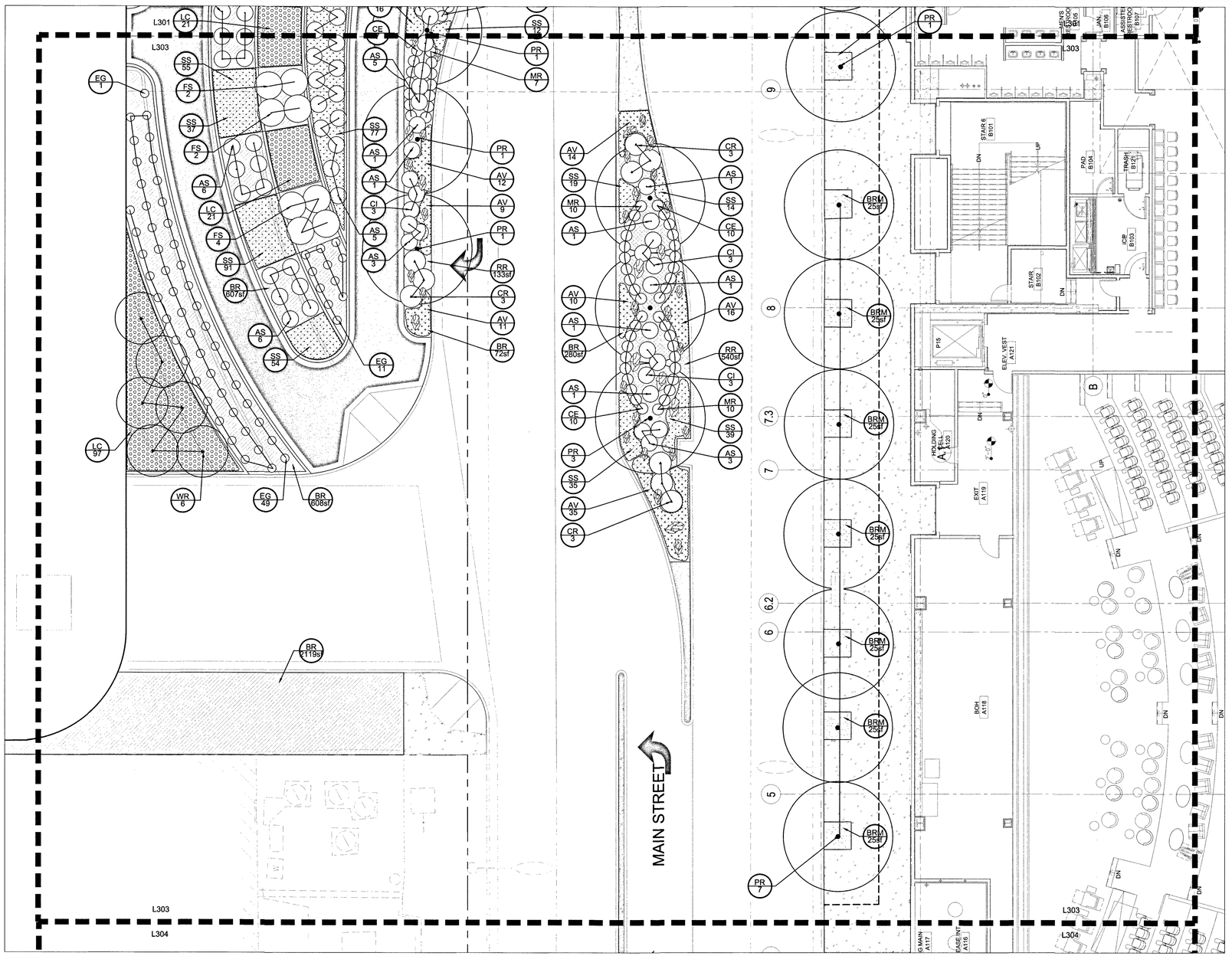
LANDSCAPE SCHEDULE		
SYM.	**BOTANICAL NAME**	**COMMON NAME**
AE	Aspidestra elatior	Cast Iron Plan
AS	*Agave salmiana var. Ferox*	Ferox Agave
AJ	*Aucuba japonica 'Varigata'*	Gold Dust Plant
AV	*Abronia villosa*	Desert Sand Verbena
CE	*Calliandra eriophylla*	Pink Fairy Duster
CH	*Chamaerops humilis*	European Fan Palm
CI	*Cistus x hybridus*	White Rock Rose
CR	*Cycas revoluta*	Sago Palm
EG	*Echinocactus grusonii*	Golden Barrel Cactus
FS	*Fouquieria splendens*	Ocotillo
GR	*Bouteloua gracilis*	Blue Grama
GZ	*Gazania linearis*	Treasure Flower
LC	*Lantana camera*	Bush Lantana
LJ	*Ligustrum japonicum*	Wax Leaf Privit
LM	*Lantana montevidensis*	Trailing Lantana
LZ	*Leucophyllum zygophyllum*	Blue Texas Ranger Sage
MR	*Muhlenbergia reverchonii*	Autumn Embers Muhly Grass
PR	*Pistacia x 'Red Push'*	Red Push Chinese Pistache
SS	*Sedum spurium 'John Creech'*	John Creech Stonecrop
WR	*Washingtonia robusta*	Mexican Fan Palm
ROCK AND STONE SCHEDULE		
SYM.	**NAME**	**SPECIFICAITON**
	Boulder Rose Boulder	2'-4' Per Plan 50%
	Rebel Red Boulder	2'-4' Per Plan 50%
BR	Boulder Rose Chunky	2"-4"
RR	Rebel Red Minus	1/2"-3/4"
BRM	Boulder Rose Minus	1/4"

SCHEDULE

PLANTING LEGEND

- RR - REBEL RED MINUS
- BRM - BOULDER ROSE MINUS
- BR - BOULDER ROSE CHUNKY
- SS - *Sedum spurium 'John Creech'*
- AV - *Abronia villosa*
- AV - *Abronia villosa*
- LC - *Lantana camera*
- PR -Pistacia x 'Red Push'
- WR - *Washingtonia robusta*
- FS - *Fouquieria splendens*
- CH - *Chamaerops humilis*
- CR - *Cycas revoluta*
- AS - *Agave salmiana var. Ferox*
- CI - *Cistus x hybridus*
- MR - *Muhlenbergia reverchonii*
- CE - *Calliandra eriophylla*
- EG - *Echinocactus grusonii*
- BOULDER

LEGEND



1 SITE LANDSCAPE ENLARGEMENT
PLAN

SCALE 1"=10'-0"

NORTH

SCALE 1"=10'-0"
0 10 ft 20 ft 400 ft

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JOB #: 20160058

ISSUED FOR:

ISSUE DATE: 04/08/2019

SCALE: PER VIEW

SHEET: 26 L303

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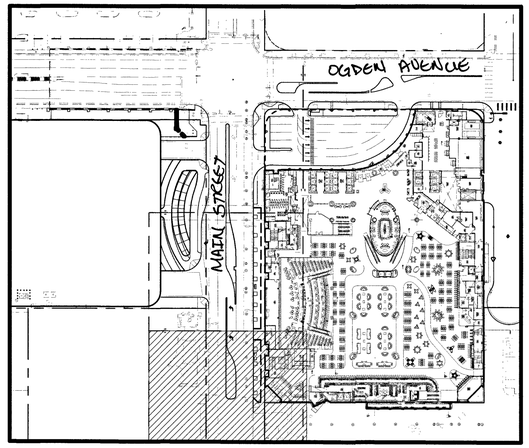


ENLARGEMENT KEY

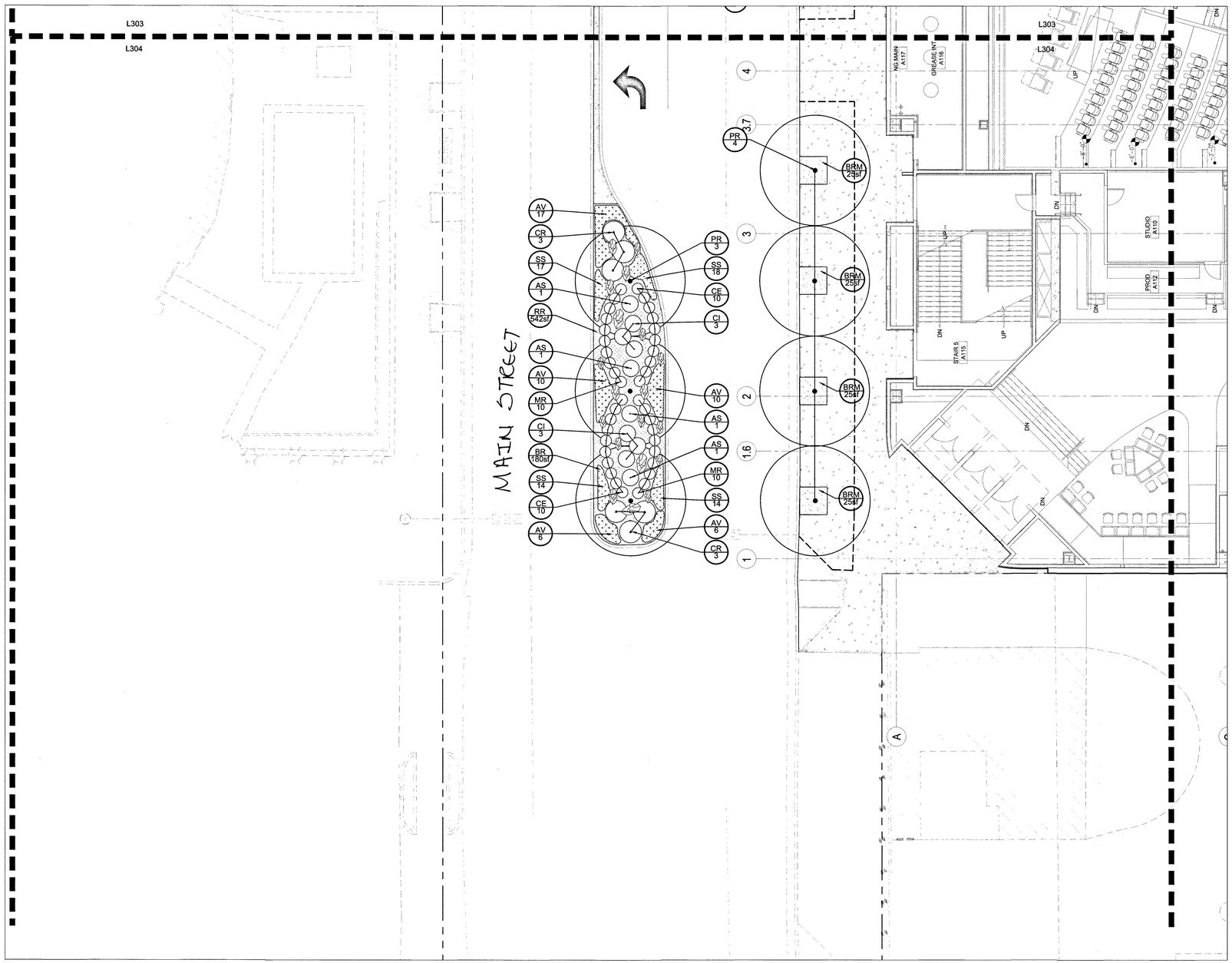
LANDSCAPE SCHEDULE		
SYM.	**BOTANICAL NAME**	**COMMON NAME**
AE	Aspidestra elatior	Cast Iron Plan
AS	*Agave salmiana var. Ferox*	Ferox Agave
AJ	*Aucuba japonica 'Varigata'*	Gold Dust Plant
AV	*Abronia villosa*	Desert Sand Verbena
CE	*Calliandra eriophylla*	Pink Fairy Duster
CH	*Chamaerops humilis*	European Fan Palm
CI	*Cistus x hybridus*	White Rock Rose
CR	*Cycas revoluta*	Sago Palm
EG	*Echinocactus grusonii*	Golden Barrel Cactus
FS	*Fouquieria splendens*	Ocotillo
GR	*Bouteloua gracilis*	Blue Grama
GZ	*Gazania linearis*	Treasure Flower
LC	*Lantana camera*	Bush Lantana
LJ	*Ligustrum japonicum*	Wax Leaf Privit
LM	*Lantana montevidensis*	Trailing Lantana
LZ	*Leucophyllum zygophyllum*	Blue Texas Ranger Sage
MR	*Muhlenbergia reverchonii*	Autumn Embers Muhly Grass
PR	*Pistacia x 'Red Push'*	Red Push Chinese Pistache
SS	*Sedum spurium 'John Creech'*	John Creech Stonecrop
WR	*Washingtonia robusta*	Mexican Fan Palm
ROCK AND STONE SCHEDULE		
SYM.	**NAME**	**SPECIFICAITON**
	Boulder Rose Boulder	2'-4' Per Plan 50%
	Rebel Red Boulder	2'-4' Per Plan 50%
BR	Boulder Rose Chunky	2"-4"
RR	Rebel Red Minus	1/2"-3/4"
BRM	Boulder Rose Minus	1/4"

SCHEDULE

PLANTING LEGEND

- RR - REBEL RED MINUS
- BRM - BOULDER ROSE MINUS
- BR - BOULDER ROSE CHUNKY
- SS - *Sedum spurium 'John Creech'*
- AV - *Abronia villosa*
- AV - *Abronia villosa*
- LC - *Lantana camera*
- PR -Pistacia x 'Red Push'
- WR - *Washingtonia robusta*
- FS - *Fouquieria splendens*
- CH - *Chamaerops humilis*
- CR - *Cycas revoluta*
- AS - *Agave salmiana var. Ferox*
- CI - *Cistus x hybridus*
- MR - *Muhlenbergia reverchonii*
- CE - *Calliandra eriophylla*
- EG - *Echinocactus grusonii*
- BOULDER

LEGEND



1 SITE LANDSCAPE ENLARGEMENT
PLAN

SCALE 1"=10'-0"

NORTH

SCALE 1"=10'-0"
0 10 ft 20 ft 400 ft

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ISSUE DATE: 04/08/2019

SCALE: PER VIEW

SHEET:

27
L304

107X7521 L18-092490

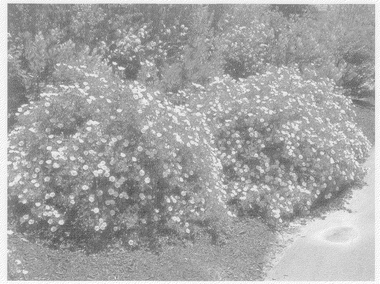
AE Aspidistra elatior
Cast Iron Plant
SHRUB

AS Agave salmiana 'Ferox'
Ferox Agave
SHRUB

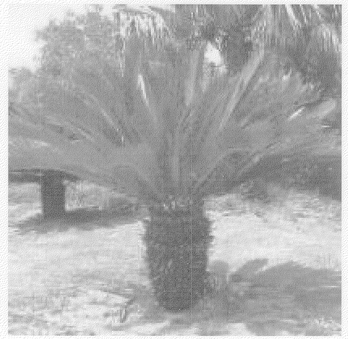
AJ Acuba japonica 'Varigata'
Gold Dust Plant
SHRUB

CE Calliandra eriophylla
Pink Fairy Duster
SHRUB

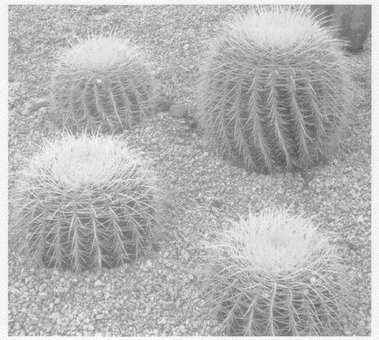
CH Chamaerops humilis
European Fan Palm
PALM



CI Cistus x hybridus
White Rock Rose
SHRUB



CR Cycas revoluta
Sago Palm
SHRUB



EG Echinocactus grusonii
Golden Barrel Cactus
SHRUB

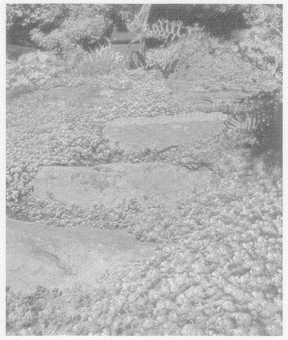
FS Fouquieria splendens
Ocotillo
SHRUB

LC Lantana camera
Bush Lantana
SHRUB

LJ Ligustrum japonicum
Wax Leaf Privit
SHRUB

MR Muhlenbergia reverchonii
Autumn Embers Muhly Grass
SHRUB

PR Pistacia x 'Red Push'
Red Push Chinese Pistache
TREE



SS Sedum spurium 'John Creech
John Creech Stonecrop
SHRUB

WR Washingtonia robusta
Mexican Fan Palm
PALM

LANDSCAPE SCHEDULE

SYM.	BOTANICAL NAME	COMMON NAME	SPECIFICAITON	QUANTITY
AE	*Aspidistra elatior*	Cast Iron Plant	3 Gal. Container 18" O.C.	157
AS	*Agave salmiana var. Ferox*	Ferox Agave	15 Gal. Container Per Plan	117
AJ	*Aucuba japonica 'Varigata'*	Gold Dust Plant	3 Gal. Container 18" O.C.	95
AV	*Abronia villosa*	Desert Sand Verbena	3 Gal. Container 18" O.C.	329
CE	*Calliandra eriophylla*	Pink Fairy Duster	3 Gal. Container 18" O.C.	62
CH	*Chamaerops humilis*	European Fan Palm	25 Gal. Container	6
CI	*Cistus x hybridus*	White Rock Rose	5 Gal. Per Plan	27
CR	*Cycas revoluta*	Sago Palm	3 Gal. Container	18
EG	*Echinocactus grusonii*	Golden Barrel Cactus	7 Gal. Container, 12" x 12" min.	179
FS	*Fouquieria splendens*	Ocotillo	10' O.A. Ht. Min., 6 Canes Min.	16
LC	*Lantana camera*	Bush Lantana	3 Gal. Container	224
LJ	*Ligustrum japonicum*	Wax Leaf Privit	7 Gal. 48" Full to Base Per Plan	56
MR	*Muhlenbergia reverchonii*	Autumn Embers Muhly Grass	3 Gal. Per Plan	62
PR	*Pistacia x 'Red Push'*	Red Push Chinese Pistache	36" Box Per Plan	26
SS	*Sedum spurium 'John Creech'*	John Creech Stonecrop	4" Pot. 12" O.C.	1313
WR	*Washingtonia robusta*	Mexican Fan Palm	BB 12'-18' C.T.	11

ROCK AND STONE SCHEDULE

SYM.	NAME	SPECIFICAITON	QUANTITY	
	Boulder Rose Boulder	2'-4' Per Plan	50 pct Mix	
	Rebel Red Boulder	2'-4' Per Plan	50 pct Mix	
BR	Boulder Rose Chunky	2"-4"	8886	
RR	Rebel Red Minus	1/2"-3/4"	4612	

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REVISIONS:

NUMBER	DESCRIPTION	DATE
X1	SITE PERMIT	04/08/2019

SHEET TITLE:

LANDSCAPE PALETTE & SCHEDULE

JOB #: 20160058

ISSUED FOR:

ISSUE DATE: 04/08/2019

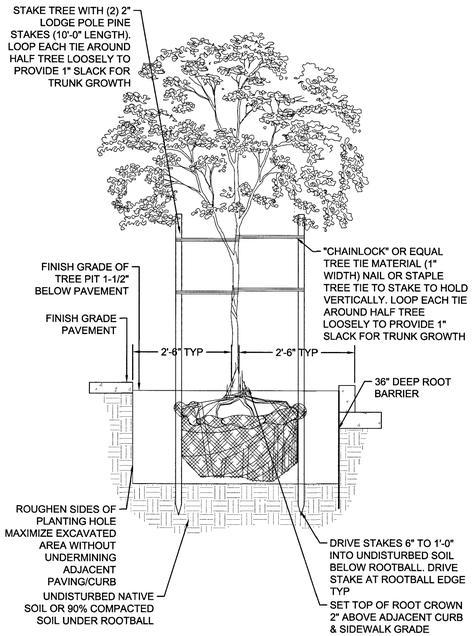
SCALE: PER VIEW

SHEET:

28

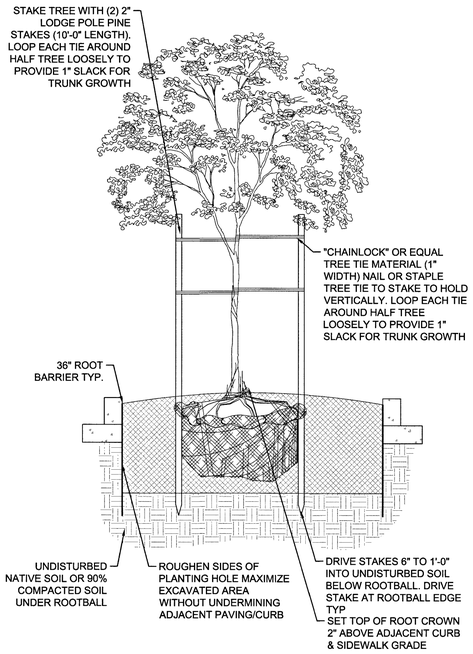
L305

1077521 LIB-034490



NOTES:
1. INSTALLATION INCLUDES REMOVAL OF STAKES ONE YEAR AFTER INSTALLATION
2. TREE PIT DEPTH = ROOTBALL DEPTH. MEASURE BEFORE DIGGING TO AVOID OVEREXCAVATION
3. REMOVE ALL WIRE AND STRING, AND REMOVE ALL BURLAP FROM TOP 2/3 OF ROOTBALL
4. TREE STAKING ALONG ROADS AND WALKWAYS - ALIGN STAKS PARALLEL WITH ROADS AND WALKS

1 TREE PLANTING (SIDEWALKS)
DRAWING — SCALE: 1/2"=1'-0"



NOTES:
1. INSTALLATION INCLUDES REMOVAL OF STAKES ONE YEAR AFTER INSTALLATION
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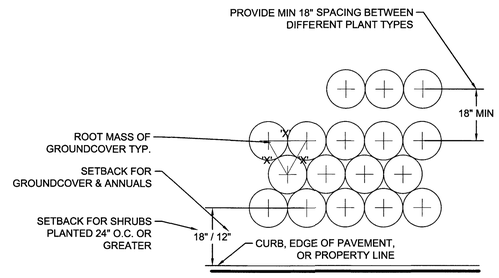
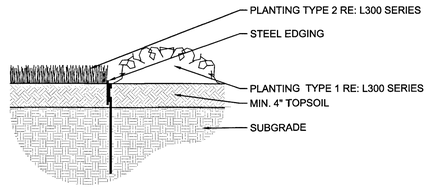
4. TREE STAKING ALONG ROADS AND WALKWAYS - ALIGN STAKS PARALLEL WITH ROADS AND WALKS

2 TREE PLANTING (MEDIANS)
DRAWING — SCALE: 1/2"=1'-0"

NOTE:
ALL SHRUBS AND GROUNDCOVERS TO USE TRIANGULAR SPACING EXCEPT WHERE NOTED, REFER TO PLANT LIST FOR INDIVIDUAL PLANT SPACING 'X'

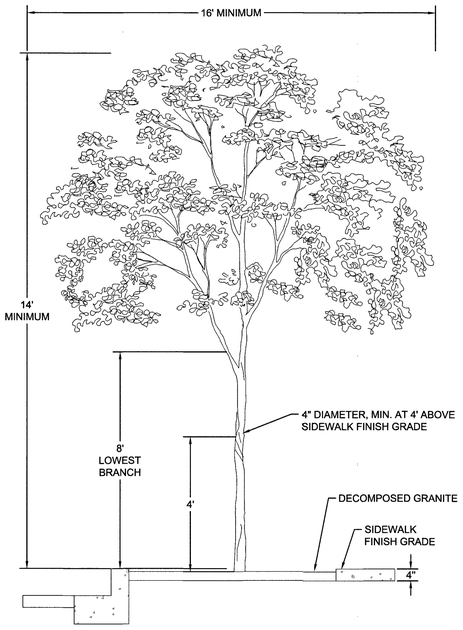


3 TYPICAL SHRUB SPACING
DRAWING — SCALE: 1/2"=1'-0"



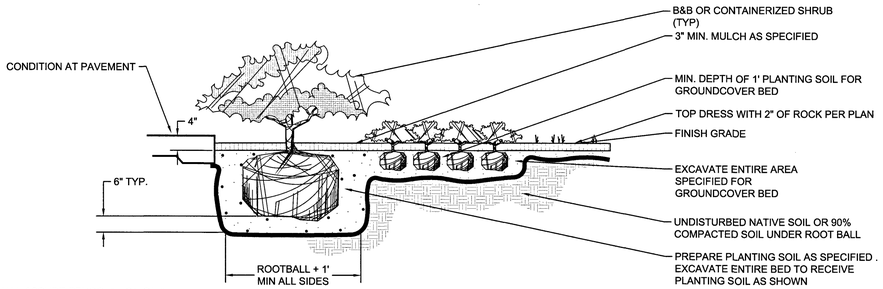
NOTE:
"PLANTING TYPE 1 AND TYPE 2" SIGNIFY A PLANTING TYPE CHANGE AND DO NOT REFLECT ACTUAL PLANT MATERIAL. RE: L300 SERIES FOR SPECIFICS

5 STEEL LANDSCAPE EDGING
DRAWING — SCALE: 1"=1'-0"



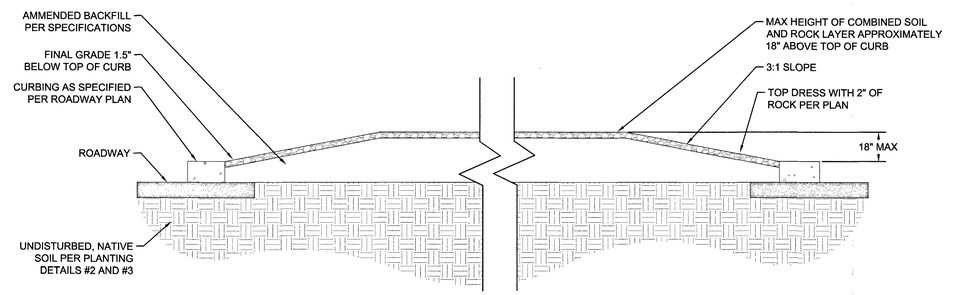
NOTES:
1. MEASURE PLANTS IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.
2. MEASUREMENTS ARE TO REPRESENT AVERAGE SIZE OF PLANT AND SHALL NOT INCLUDE UNUSUALLY LONG BRANCHES.

7 TREE SIZE (MINIMUMS)
DRAWING — SCALE: 1/2"=1'-0"



NOTE:
CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS/BEDS PRIOR TO INSTALLATION. REMOVE CONTAINER COMPLETELY OR REMOVE BURLAP FROM TOP 2/3 OF ROOTBALL. REMOVE ALL WIRE AND STRING.

4 TYPICAL SHRUB PLANTING
DRAWING — SCALE: 1/2"=1'-0"



6 MEDIAN MOUNDING
DRAWING — SCALE: 1/2"=1'-0"

Steelman Partners

ARCHITECTURE
INTERIOR DESIGN
LIGHTING DESIGN
MULTIMEDIA
GRAPHIC DESIGN
PRODUCT DESIGN

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email: info@sksimms.com

SEAL:

REGISTERED LANDSCAPE ARCHITECT SEAN SIMMS 850 Expires: 12/31/19 STATE OF NEVADA

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SHEET TITLE:

LANDSCAPE DETAILS

JOB #: 20160058

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L306

10747521 L18-03490