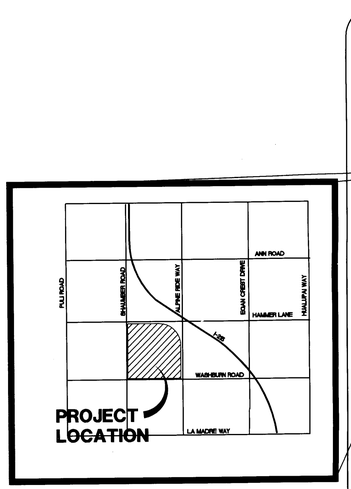
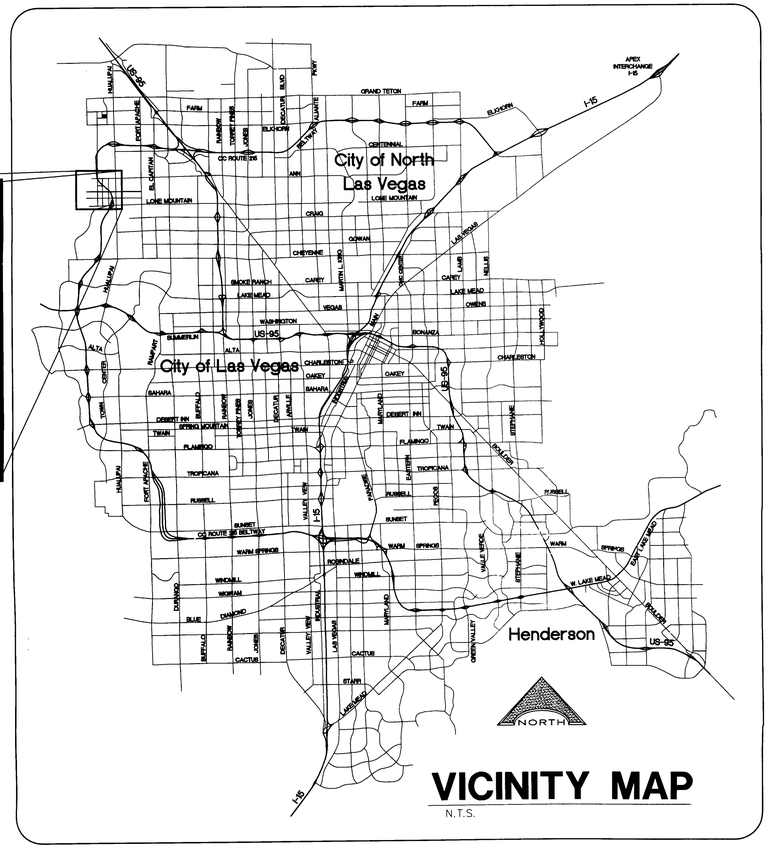
IMPROVEMENT PLANS
FOR
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY
APN #126-36-201-002 (A PORTION OF)





VICINITY MAP
N.T.S.

SHEET INDEX

OWNER/DEVELOPER

CLARK COUNTY SCHOOL DISTRICT
4828 PEARL ST.
LAS VEGAS, NEVADA 89121
CONTACT: CONSTRUCTION DIVISION (702) 799-7604

ENGINEER'S OPINION OF CUT AND FILL QUANTITIES

TOTAL . . . . . CUT xxx CUBIC YARDS
FILL xxx CUBIC YARDS
NET CUT xxx CUBIC YARDS

NOTE: THIS OPINION OF CUT & FILL QUANTITIES IS PROVIDED AS REQUIRED BY THE CLARK COUNTY BUILDING CODE AND SHOULD NOT BE USEID FOR BIDDING PURPOSES. ALL CONTRACTORS ARE RESPONSIBLE FOR THEIIR OWN QUANTITIES.
ALL GRADING SHALL CONFORM TO RECOMMENDATIONS OF THE SOILS ENGINEER AS CONTAINED IN THE GEOTECHNICAL EVALUATION REPORT PREIPARED BY ANGLE ENGINEERING, DATED:
REPIORT NUMBER:

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36, TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLAIRK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

APPROVALS

CHERI EDELMAN, PE No 11514 — DATE
CITY ENGINEER

APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOESS NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER DEVIATIONS FROM STANDARD. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVATIONS FROM STANDARD IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

DOUG RANKIN, AICP MANAGER OF PLANNING DEVELOPMENT — DATE
THIS MEETS THE APPLICABLE STANDARDS OF
THE PLANNING AND DEVELOPMENT DEPARTMENT

CITY FIRE MARSHAL — DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT — PROJ. # — DATE
(SHEETS:

NV IENERGY — DATE

NV IENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONIFLICTS WILL BE ACCOMPLISHED PERSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

CENTURY LINK — DATE

"THE AFFIXED CENTURY LINK NEVADA APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS."

COX COMMUNICATIONS LAS VEGAS, INC. — DATE

SOUTHWEST GAS CORPORATION — DATE

This grading plan is a part of drainage study #4511 which was accepted on 2/7/14 and signed on 3/7/14. Page 1 of 26

REVISIONS

REV	DESCRIPTION	DATE	BY

SEAL: VERNON R. HARKINS EXP 6/30/15 CIVIL No. 009696 — 2/11/14

CCSD PROJECT NO. 1543
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY

SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-516

L. R. NIELSON CONSULTING ENGINEERS, INC.
• STRUCTURAL • CIVIL • SURVEY • PLANNING
6795 West Russell Road, Suite 200
Las Vegas, Nevada 89118
(702) 798-7978
(702) 451-2296 FAX

KGA ARCHITECTURE
1701 Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.8200
www.KGAarchitecture.com
AUSTIN

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: COVER SHEET

SHEET NO. C1.00
SHEET 1 OF 77

CLV#
HTE#

CLV 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 THE 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 THE 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 ENGINEER, 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 (1/2") 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 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 RELOCATION.
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. STATUE NO. 625.380 AND 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 DISTANCES 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 CLEANOUTS, 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 RIBBONS, 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. SANITARY AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE OFFSITE TESTING AND INSPECTION SECTION PRIOR TO PROJECT ACCEPTANCE. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXITS THE PUBLIC RIGHT-OF-WAY. THE LOCATION SHALL BE DESCRIBED BY STATE PLANE COORDINATES WHICH SHALL BE BASED ON THE "NEVADA COORDINATE SYSTEM OF 1983, EAST ZONE" AS DEFINED BY THE NEVADA REVISED STATUTES CHAPTER 327, AND TIED TO THE CITY OF LAS VEGAS VERTICAL CONTROL BENCHMARK NETWORK. COORDINATED MUST BE CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ±0.1 METER (±0.3 FEET). A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. SANITARY SEWER SERVICE LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE SEWER SERVICE LATERAL TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY. STORM DRAIN LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE STORM DRAIN LATERAL TO THE STORM DRAIN MAIN AND WHERE THE STORM DRAIN LATERAL EXITS THE PUBLIC RIGHT-OF-WAY OR WHERE THE STORM DRAIN LATERAL CONNECTS TO A DROP INLET. THE MARKER BALL SHALL BE 3M 4" MARKER BALL 1404-XR OR APPROVED EQUAL.
23. 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.
24. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 04/15/10

CLV 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 CONTENT 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") AND 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 CONSTRUCTIONS 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 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS

REVISED 04/15/10

CLV STREET LIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND ANY ADOPTED SPECIAL AREA STANDARDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2#4 AND 1#8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC. SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE CIVIL PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COSTS OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHT/S AND/OR SERVICE/S INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

REVISED 04/15/10

CLV TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC 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 ADVANCED WARNING SIGNS FOR THE CONSTRUCTION ZONE. 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 "SAFE 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 BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREETNAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. 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 DIEVICES 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 HEREUNDER, 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.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO ENSURE 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 RIGHTS OF WAY.
11. 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.
12. 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.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE NO. 229-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET UP BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. 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 04/15/10

LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT'S ORDINANCE # 5667,"HYDRANT SPECIFICATIONS", AND "HYDRANT INSTALLATION SPECIFICATION".
2. AUTHORIZED FIRE HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY – GUARDIAN MODELS K81A AND K81D
   B. MUELLER – SUPER CENTURION 250 MODEL A-423
   C. CLOW – MEDALLION MODEL F-2546LVD
   D. TROY VALVE – PATRIOT MODEL PT8100N NEVADA HYDRANT
   E. U.S. PIPE – METROFLOW/M-03
3. 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.
4. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS AS REQUIRED BY ORDINANCE # 5667.
5. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CALL THE CITY OF LAS VEGAS INSPECTION HOT-LINE AT 229-2071 TO REQUEST AN INSPECTION BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
6. PAINTING OF THE CURBS AND FIRE HYDRANTS AND ALL OTHER WORK NECESSARY AS REQUIRED BY ORDINANCE # 5667, FOR THE PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE CITY OF LAS VEGAS FIRE DEPARTMENT FOR THE ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK.
8. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
9. PRIOR TO THE FINAL OCCUPANCY, A FLOW TEST MUST BE WITNESSED BY THE CITY OF LAS VEGAS FIRE DEPARTMENT TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW.

LAS VEGAS FIRE AND RESCUE GENERAL NOTES (CONT.)

10. 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.
11. FIRE HYDRANTS SPACING SHALL BE:
    RESIDENTIAL – 500 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
    COMMERCIAL – 300 FEET UNSPRINKLERED; 400 FEET SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR 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 FEET ON AN ALTERNATING BASIS.
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION.
15. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FEET, AS MEASURED BY AN APPROVED ROUTE.
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FEET, AS MEASURED BY AN APPROVED ROUTE.
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FEET.
18. TWO SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 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.
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.
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS.
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN 13 FEET 6 INCHES. INCHES.
23. FIRE DEPARTMENT ACCESS ROADS IN ALL RESIDENTIAL DEVELOPMENTS (EXCEPT FOR THE APARTMENT BUILDINGS) SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 36 FEET FLOW LINE TO THE FLOW LINE (THIS WIDTH MAY BE REDUCED TO 24 FEET, IF ALL BUILDINGS FRONTING THE STREET ARE SPRINKLERED) FOR MAIN RESIDENTIAL STREETS, WITH PARKING PERMITTED ON BOTH SIDES OF THE STREET. PRIVATE DRIVE AISLES, DRIVEWAYS, ETC. SHALL BE ALLOWED TO BE REDUCED TO A MINIMUM WIDTH OF 24 FEET WIDE FLOW LINE TO THE FLOW LINE WHEN SERVING NO MORE THAN 6 RESIDENCES, AND WHEN ON STREET PARKING IS DISALLOWED.
24. ALL FIRE APPARATUS ACCESS ROADS IN COMMERCIAL DEVELOPMENTS AND APARTMENT COMPLEXES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 24 FEET (FLOW LINE TO THE FLOW LINE), PROVIDED NO PARKING IS ALLOWED ON EITHER SIDE; 32 FEET (FLOW LINE TO THE FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON ONE SIDE ONLY; AND 40 FEET (FLOW LINE TO THE FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. THESE WIDTHS MAY BE REDUCED BY 4 FEET IF ALL BUILDINGS ARE SPRINKLERED.
25. A FIRE DEPARTMENT ACCESS ROAD SHALL EXTEND TO WITHIN 50 FEET OF A SINGLE EXTERIOR DOOR PROVIDING ACCESS TO THE INTERIOR OF THE BUILDING.
26. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASE TO 250 FEET IF THE BUILDING IS SPRINKLERED.
27. 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 FEET, AND FOR ALL COMMERCIAL, INDUSTRIAL, AND MULTIFAMILY RESIDENTIAL DEVELOPMENTS.
28. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 81 FEET.
29. 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 100 FEET ALONG ALL DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT IF A CURB IS NOT PROVIDED SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS.
30. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.

CLV GRADING NOTES

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

FLOOD ZONE NOTE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C 1750E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

DEVIATION FROM STANDARDS

1. NONE

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (MW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS.

APPROVALS

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PROJ# DATE

CLARK COUNTY WATER RECLAMATION DISTRICT DATE

CCWRD PROJECT CONTROL NUMBER IS xxxxx
SIGNATURE ON THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF CLARK COUNTY WATER RECLAMATION DISTRICT RULES, REGULATIONS, OR DESIGN AND CONSTRUCTION STANDARDS. THE APPROVAL OF THESE DRAWINGS DOES NOT GUARANTEE CAPACITY IN THE DISTRICTS COLLECTION OR TREATMENT SYSTEM.

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11 Page 2 of 26

CLARK COUNTY FIRE DEPARTMENT APPROVAL

BY ______ DATE______

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 GPM AT xxxx @ 20 P.S.I. RESIDUAL.

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS
AND 1-702-229-6611 LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

SEAL: PROFESSIONAL ENGINEER · STATE OF NEVADA · VERNON R. HARKINS · EXP 6/30/11 · CIVIL · No. 009898 · 2/17/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
· STRUCTURAL · CIVIL · SURVEY · PLANNING
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
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(702) 451-2296 FAX

KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor
Las Vegas, Nevada 89148
702.367.6900
LAS VEGAS

101 Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.8200
AUSTIN

KGArchitecture.com

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE
LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: GENERAL NOTES

SHEET NO. C1.01
SHEET 2 OF 77

CLV#

HTE#

CLARK COUNTY WATER RECLAMATION

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION; UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS, LATEST EDITION; THE UNIFORM STANDARDS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY, NEVADA, AS AMENDED; AND THE UNIFORM PLUMBING CODE. CONTRACTOR SHALL ADVISE THE CONTROLLING AGENCY OF ANY CONFLICTS DISCOVERED BETWEEN THESE SPECIFICATIONS PRIOR TO PROCEEDING WITH THE WORK GOVERNED BY THE CONFLICTING REQUIREMENTS. THE ENGINEER AND/OR CONTRACTOR SHALL PROPOSE A RESOLUTION TO THE CONFLICT FOR REVIEW BY THE AGENCY PRIOR TO PERFORMING THE WORK AFFECTED BY THE CONFLICT. THE RESOLUTION SHALL GENERALLY BE IN THE MANNER THAT YIELDS THE HIGHER QUALITY AND/OR PERFORMANCE OF THE WORK. THE CONTROLLING AGENCY SHALL ISSUE WRITTEN APPROVAL FOR THE RESOLUTION OF THE CONFLICT WHICH SHALL BECOME A PART OF THE CONSTRUCTION DOCUMENTS FOR THE WORK.
2. THESE STANDARDS APPLY TO ALL CONSTRUCTION.
3. SEWER MAINS SHALL BE LAID INDIVIDUALLY IN TRENCHES THAT ARE INDEPENDENT FROM THE TRENCHES FOR OTHER UTILITIES.
4. ALL LATERALS SHALL BE LAID AT SLOPES NOT LESS THAN THE MINIMUM SLOPES SHOWN IN THESE SPECIFICATIONS.
5. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PERFORM CONSTRUCTION IN FULL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. SHOULD THE DEVELOPER, ENGINEER OR CONTRACTOR WISH TO MAKE CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS, SUCH CHANGES SHALL BE APPROVED BY THE AGENCY PRIOR TO CONSTRUCTION OF THE AFFECTED IMPROVEMENTS. CHANGES CONSTRUCTED WITHOUT AGENCY APPROVAL SHALL BE REMOVED BY THE CONTRACTOR AT ITS OWN EXPENSE AND THE WORK CONSTRUCTED AS DEPICTED IN THE APPROVED CONSTRUCTION DOCUMENTS.
6. SOIL TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 3.15 OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS, LATEST EDITION.
7. ALL AIR TESTING, VISUAL INSPECTION, SYSTEM CLEANING, DEFLECTION TESTING, TELEMSING, PRESSURE TESTING AND LEAKAGE TESTING SHALL BE IN ACCORDANCE WITH SECTION 3.16 OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS, LATEST EDITION.
8. CUT SHEETS CONFORMING TO SECTION 3.6 OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS, LATEST EDITION SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CONTROLLING AGENCY FOR REVIEW BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOT BEGIN CONSTRUCTION UNTIL AUTHORIZED BY THE AGENCY.
9. CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE AGENCY SHALL POSSESS A CLASS "A" LICENSE PER THE NEVADA STATE CONTRACTOR'S BOARD.
10. WHEN CONNECTING TO AN EXISTING STUB, CONTRACTOR SHALL CLEAN AND TEST BOTH THE NEW AND EXISTING FORTIONS OF THE LINE TO THE NEXT MANHOLE UPSTREAM/DOWNSTREAM.
11. ALL SANITARY SEWER MANHOLES SHALL BE LOCATED AND CONSTRUCTED SUCH THAT THEY ARE ACCESSIBLE TO CONVENTIONAL SEWER MAINTENANCE VEHICLES AT ALL TIMES AND UNDER ALL WEATHER CONDITIONS. THOSE MANHOLES INSTALLED ALONG ACCESS ROADS HAVING SINGLE POINTS OF ENTRY AND EGRESS (i.e. "DEAD-END-ROADS") SHALL HAVE AT LEAST ONE LOCATION ALONG THE ACCESS ROAD HAVING SUFFICIENT WIDTH TO ALLOW TURN-AROUNDS OF VEHICLES HAVING INSIDE TURNING RADII OF 50-FEET.
12. ALL SEWER MAINS UNDER CONSTRUCTION SHALL HAVE A DEBRIS TRAP PER STANDARD DRAWING SD-30 AT THE POINT OF CONNECTION TO THE EXISTING SEWER SYSTEM UNTIL ALL CONSTRUCTION ACTIVITIES, INCLUDING FINAL TESTING, ARE COMPLETED AND THE SEWER IS READY FOR FINAL ACCEPTANCE BY THE AGENCY.
13. ALL MANHOLES UNDER CONSTRUCTION SHALL HAVE PLUGS PLACED IN THEIR OUTLET PIPES DURING ALL CONSTRUCTION ACTIVITIES TO PREVENT THE MIGRATION OF SEWER CONSTRUCTION DEBRIS DOWNSTREAM. THESE PLUGS MAY BE REMOVED FOR SHORT PERIODS AS NECESSARY TO ACCOMPLISH FINAL SEWER CLEANING AND TESTING TASKS PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS.
14. PRIOR TO ANY SEWER MAIN BEING PLACED IN SERVICE AND AS A CONDITION OF FINAL ACCEPTANCE, ALL NEW SEWER MAINS SHALL BE TELEVISED IN ACCORDANCE WITH SECTION 3.19.1.e OF THE DESIGN STANDARDS.
15. IF ANY EXISTING MANHOLE HAVING A LINING SYSTEM IS BEING MODIFIED AS PART OF THE CONSTRUCTION OF THE NEW SANITARY SEWER, THAT LINING SYSTEM SHALL BE RESTORED TO ITS ORIGINAL CONDITION PRIOR TO THE MODIFICATIONS USING LINING MATERIALS AND SYSTEMS THAT ARE FULLY COMPATIBLE WITH THE ORIGINAL LINING.
16. FIELD-INSTALLED SEWER LINING SYSTEMS MAY NOT BE INSTALLED UNTIL AFTER ALL MANHOLE CONSTRUCTION TASKS ARE COMPLETED, INCLUDING BACKFILLING AND INITIAL GRADE ADJUSTMENTS, BUT PRIOR TO FINAL GRADE ADJUSTMENT.
17. NEW SEWERS HAVING GRADES OF 0.5 PERCENT OR LESS SHALL BE STAKED FOR CONSTRUCTION AT A MAXIMUM OF 25-FEET ON CENTER.
18. SEWER LATERALS SHALL BE CONNECTED TO SEWER MAINS ONLY. LATERALS MAY NOT BE CONNECTED TO SANITARY SEWER MANHOLES UNLESS APPROVED BY THE AGENCY.
19. SEWER PIPE MATERIAL, PIPE SPECIFICATION, WALL THICKNESS, INTERNAL DIAMETER AND PIPE SLOPE SHALL BE UNIFORM BETWEEN MANHOLES. CHANGES IN PIPE MATERIALS, SPECIFICATIONS, WALL THICKNESSES, INTERNAL DIAMETERS AND/OR PIPES SLOPES SHALL BE MADE AT MANHOLES ONLY.
20. LOCATOR RIBBON AND MARKER BALLS SHALL BE PLACED ABOVE ALL NEW SANITARY SEWERS, LATERALS AND FORCE MAINS IN ACCORDANCE WITH SECTION 3.14 OF THE DESIGN STANDARDS.

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

LVVWD PROJECT# XXXXX

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY 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 THE LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND TO THE 2003 EDITION OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS).
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, 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 2.19 OF THE 2003 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'S 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 PICK-UP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.13.01, 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

DEPARTMENT OF PUBLIC WORKS NOTES

1. INSPECTIONS ARE REQUIRED. CALL 24 HOURS IN ADVANCE, 455-4610. YOUR PERMIT, APPROVED PLANS, AND BARRICADE PLANS FOR THIS WORK MUST BE ON THE JOB SITE AT ALL TIMES.
2. EXACT LOCATION OF ALL SAW-CUT LINES SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTION.
3. CURB AND GUTTER WITH A GRADE OF LESS THAN ½ OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
4. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF (½") INCH ABOVE THE LIP OF THE GUTTER (INCLUDING OPEN GRADE).
5. ALL OFF-SITE IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS AND STANDARD DRAWINGS CLARK COUNTY AREA NEVADA AND CLARK COUNTY SUPPLEMENT TO UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, LATEST REVISION.
6. PRIVATE STREETS, CURB AND GUTTER AND VALLEY GUTTERS REFLECTED ON THESE PLANS ARE TO BE INSPECTED BY A CLARK COUNTY INSPECTOR.
7. WHEEL CHAIR RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.
8. PROPER SIGNS, BARRIERS, BARRICADES AND LIGHTS SHALL BE PLACE AND MAINTAINED IN ACCORDANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS". TRAFFIC, SCHOOL, OR STREET SIGNS OF ANY KIND ARE NOT TO BE MOVED FOR ANY REASON WITHOUT FIRST COORDINATING WITH THE DEPARTMENT OF PUBLIC WORKS INSPECTOR AT 455-4610.
9. THIS PLAN DOES NOT AUTHORIZE CLOSURE OF ANY ROAD OR STREET.
10. NO OPEN TRENCH SHALL BE ALLOWED ACROSS ANY STREET OR WITHIN TEN (10') OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. AREAS COVERED BY ACCEPTABLE STEEL PLATE ARE NOT TO BE CONSTRUED AS A TRENCH. NO OPEN TRENCH IS PERMITTED IN EXCESS OF 500 FEET OR LENGTH NECESSARY TO ACCOMMODATE PIPE INSTALLATION IN A SINGLE DAY, WHICH EVER IS GREATER. ALL TRENCH CROSSINGS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATION UNLESS OTHERWISE STATED.
11. A TEMPORARY PATCH IS TO BE IN PLACE AT THE END OF EACH WORK DAY WHERE THE BACKFILL IN THE TRENCH HAS BEEN COMPLETED AND PRIOR TO OPENING THE WORK AREA BACK TO TRAFFIC AND IS TO BE MAINTAINED BY THE PERMITEE. A PERMANENT PATCH IS TO BE IN PLACE WITHIN THIRTY (30) DAYS AFTER THE INSTALLATION OF THE TEMPORARY PATCH.
12. COMPACTION TESTS ARE REQUIRED.

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND OF INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITIONS TO BE DETERMINED BY THE COUNTY ENGINEER.
2. LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM INFORMATION RECEIVED FROM THE APPLICABLE UTILITY COMPANIES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN, OR NOT IN THE LOCATION SHOWN ON THE DRAWINGS. CONTRACTOR TO VERIFY THE EXACT LOCATION OF UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR'S RESPONSIBILITY REGARDING UTILITIES SHALL BE AS REQUIRED UNDER SECTION 107.17 OF THE UNIFORM STANDARD SPECIFICATIONS FOR CLARK COUNTY AREA, NEVADA AND AS PROVIDED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING OVER OR NEAR THE EXISTING GAS MAINS.
3. ALL WORK AUTHORIZED BY THIS PLAN SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS AND STANDARD DRAWINGS CLARK COUNTY AREA, NEVADA" AND CLARK COUNTY SUPPLEMENT TO UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS", LATEST REVISION.
4. 48 HOURS PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT:

CLARK COUNTY SANITATION DISTRICT	458-1180
LAS VEGAS VALLEY WATER DISTRICT	870-2011
NV ENERGY	1-800-227-2600
CENTURYLINK	1-800-227-2600
SOUTHWEST GAS CORPORATION	365-2296
COX COMMUNICATIONS LAS VEGAS, INC.	384-8084

5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING 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 RECONSTRUCTED SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
6. ALL BARRICADING AND TEMPORARY TRAFFIC CONTROL DEVICES OR METHODS USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK, 1986", PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF HIGHWAYS.
7. ALL CONCRETE FOR THIS PROJECT SHALL BE TYPE V SIX SACK MIX.

STORM WATER 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 UNFORSEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY 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 STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT 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 STORM WATER 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.

ESTIMATE OF QUANTITIES FOR SHAUMBER ROAD

STREET	(PUBLIC)
5.5" AC PAVEMENT	15,276 SY
TYPE II AGGREGATE BASE	1910 CY
AC REMOVAL	5032 SY
CONCRETE SIDEWALK	6220 SF
"L" TYPE CURB AND GUTTER	1244 LF

WATER	(PUBLIC)
24" D.I.P. WATERLINE	6499 LF
42" STEEL CASING	279 LF
VALVE VAULT ASSEMBLY	5 EA
FIRE HYDRANT ASSEMBLY	2 EA
30"x24" ECCENTRIC REDUCER	1 EA
2" METER	2 EA
2" RPPA	2 EA
8" RPDA	1 EA
12" PVC	1304 LF
8" PVC	13 LF
6"PVC	26 LF

STORM DRAIN	(PUBLIC)
18" CLASS III RCP	
24" CLASS III RCP	

MISC.	(PUBLIC)

ESTIMATE OF QUANTITIES FOR HAMMER/ALPINE RIDGE

STREET	(PUBLIC)
5.5" AC PAVEMENT	10,504 SY
TYPE II AGGREGATE BASE	1486 CY
AC REMOVAL	SY
CONCRETE SIDEWALK	12320 SF
"L" TYPE CURB AND GUTTER	2464 LF

WATER	(PUBLIC)
FIRE HYDRANT ASSEMBLY	2 EA
8" RPDA	1 EA
12" PVC (C900)	466.50 LF
8" PVC (C900)	1800.79 LF

STORM DRAIN	(PUBLIC)
18" CLASS III RCP	
24" CLASS III RCP	

MISC.	(PUBLIC)

ESTIMATE OF QUANTITIES FOR WASHBURN ROAD AND HUALAPAI

STREET	(PUBLIC)
5.5" AC PAVEMENT	11578 SY
TYPE II AGGREGATE BASE	1589 CY
AC REMOVAL	SY
CONCRETE SIDEWALK	12150 SF
"L" TYPE CURB AND GUTTER	2430 LF

WATER	(PUBLIC)
FIRE HYDRANT ASSEMBLY	2 EA
8" RPDA	1 EA
12" PVC (C900)	1407 LF
6" PVC (C900)	26 LF
2" MANUAL BLOWOFF ASSEMBLY	1 EA
2" METER	1 EA
2" RPPA	1 EA

STORM DRAIN	(PUBLIC)
18" CLASS III RCP	
24" CLASS III RCP	

MISC.	(PUBLIC)

ESTIMATE OF QUANTITIES FOR ONSITE DEVELOPMENT

STREET	(PRIVATE)
3" AC PAVEMENT	118278 SY
2" AC PAVEMENT	20445 SY
TYPE II AGGREGATE BASE	16112 CY
"A" TYPE CURB	10496 LF
SERVICE YARD CONCRETE	18320 SF
CONCRETE SIDEWALK	7742 SF
"L" TYPE CURB AND GUTTER	4108 LF

WATER	(PRIVATE)
FIRE HYDRANT ASSEMBLY	3 EA
8" PVC (C900)	2394 LF
6" PVC (C900)	53 LF
8"x6" TEE	3 EA
8" GATE VALVE	5 EA
6" GATE VALVE	3 EA
2" METER	1 EA
2" RPPA	1 EA
2" PVC (WATER QUALITY)	356 LF
4" PVC (C900)	374 LF

STORM DRAIN
18" CLASS III RCP
24" CLASS III RCP

MISC.

LEGEND

XXX / XX	PROPOSED ELEVATION
(XXX) / XX	EXISTING ELEVATION
[XXX] / XX	FUTURE ELEVATION
XXXX	EXISTING CONTOUR
	BLOCK WALL
	DIRECTION OF FLOW
1 OR 1	CONSTRUCTION KEY NOTE
	RIGHT-OF-WAY
	STREET CENTERLINE
	SWALE
0.50%	PROPOSED GRADE
(0.50%)	EXISTING GRADE
[0.50%]	FUTURE GRADE
	EXISTING EDGE OF PAVING
	PROPOSED EDGE OF PAVING
G / B	GRADE BREAK
	EXISTING SANITARY SEWER
	EXISTING WATER MAIN
	PROPOSED SANITARY SEWER
	PROPOSED WATER MAIN
	EXISTING FIRE HYDRANT
	EXISTING VALVE
	EXISTING MANHOLE
	PROPOSED FIRE HYDRANT
	PROPOSED VALVE
S	PROPOSED SEWER MANHOLE
	CLEANOUT

ABBIREVIATIONS

AC	ASPHALTIC CONCRETE	NTS	NOT TO SCALE
BOC	BACK OF CURB	OC	ON CENTER
BCR	BACK OF CURB RETURN	PC	POINT OF CURVATURE
BLDG	BUILDING	PCC	POINT OF COMPOUND CURVATURE
BO	BLOW OFF		
BSW	BACK OF SIDEWALK	R	PROPERTY LINE
℄	CENTERLINE	PP	POWER POLE
C.C.A.U.S.D.	CLARK COUNTY AREA UNIFORM STD. DRAWING	PT	POINT OF TANGENCY
		PVC	POLYVINYL CHLORIDE PIPE
CO	CLEAN OUT	RCB	REINFORCED CONC. BOX
CONC	CONCRETE	RCP	REINFORCED CONC. PIPE
DIA	DIAMETER	R.O.W.	RIGHT-OF-WAY
D.I.	DROP INLET	SW	SIDEWALK
D.I.P.	DUCTILE IRON PIPE	STD	STANDARD
DOM.	DOMESTIC	STA	STATION
EA	EACH	SD	STORM DRAIN LINE
EP OR EOP	EDGE OF PAVEMENT	SS	SANITARY SEWER LINE
EXIST	EXISTING	D.C.S.W.C.S.	DESIGN AND CONSTRUCTION STANDARDS FOR WASTE WATER COLLECTION SYSTEMS
FC	FACE OF CURB		
FF	FINISHED FLOOR ELEV		
FG	FINISHED GROUND ELEV	T	TELEPHONE LINE
FH	FIRE HYDRANT	TBC	TOP BACK OF CURB
FL	FLOW LINE	TE	TRASH ENCLOSURE
FS	FINISHED SURFACE	TF	TOP OF FOOTING
G OR GAS	GAS LINE	TOP	TOP OF PIPE
GB	GRADE BREAK	TC	TOP OF CURB
GM	GAS METER	TW	TOP OF WALL
GR	DRAIN GRATE	(TYP)	TYPICAL
GV	GATE VALVE	VG	VALLEY GUTTER
H	HEIGHT	U.D.A.C.S.	UNIFORM DESIGN & CONSTRUCTION STD. FOR WATER DISTRIBUTION SYSTEMS
HP	HIGH POINT		
INV	INVERT		
(IRR)	IRRIGATION	W/	WITH
L	LENGTH	WL	WATER LINE
LF	LINEAR FEET	WM	WATER METER
LP	LOW POINT	WV	WATER VALVE
MAX	MAXIMUM		
MH	MANHOLE		
MIN	MINIMUM		
MOD	MODIFIED		

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 3 of 26

REVISIONS			
REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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OR
1-702-228-5811 LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — VERNON R. HARKINS — EXP 6/30/11 — CIVIL — No. 009898 — 2/1/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DRAWN BY
CHECKED BY
DATE DECEMBER 21, 2010
SUBMITTAL
LVVWD PROJECT NO. XXXXX
A.E. PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
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(702) 798-7978 FAX (702) 451-2296

KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor Las Vegas, Nevada 89148 702.367.6900
1701 Directors Boulevard, Suite 770 Austin, Texas 78744 512.441.8200
www.KGAarchitecture.com
LAS VEGAS — AUSTIN

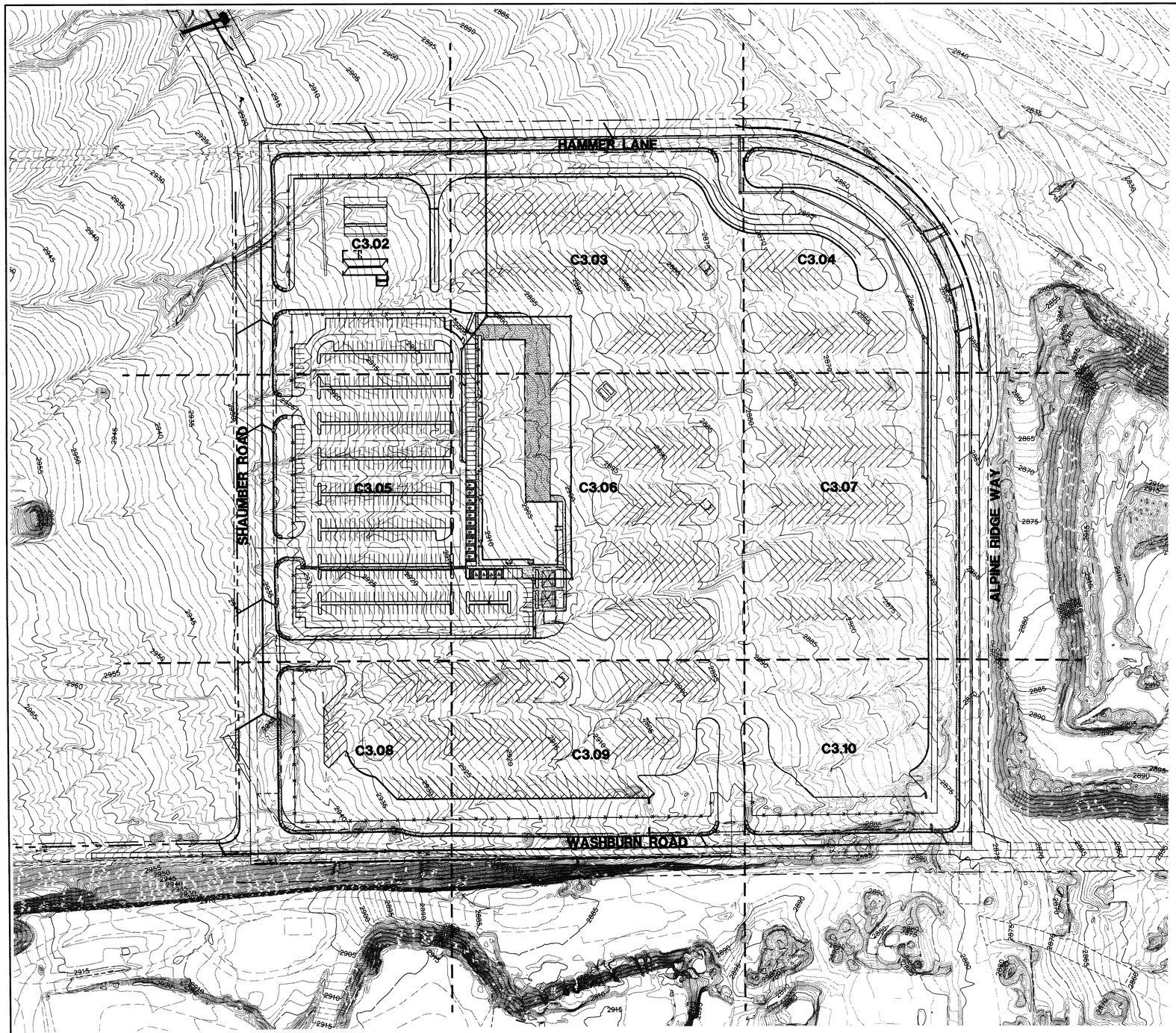
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: GENERAL NOTES

SHEET NO. C1.02
SHEET 3 OF 77

CLV#
HTE#



NORTH

GRAPHIC SCALE

100 0 50 100 200

1 inch = 100 feet

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK SLV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 4 of 26

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

REVISIONS

REV	DESCRIPTION	DATE	BY

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LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/17/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL
A/E PROJECT NO. 08-816

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4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

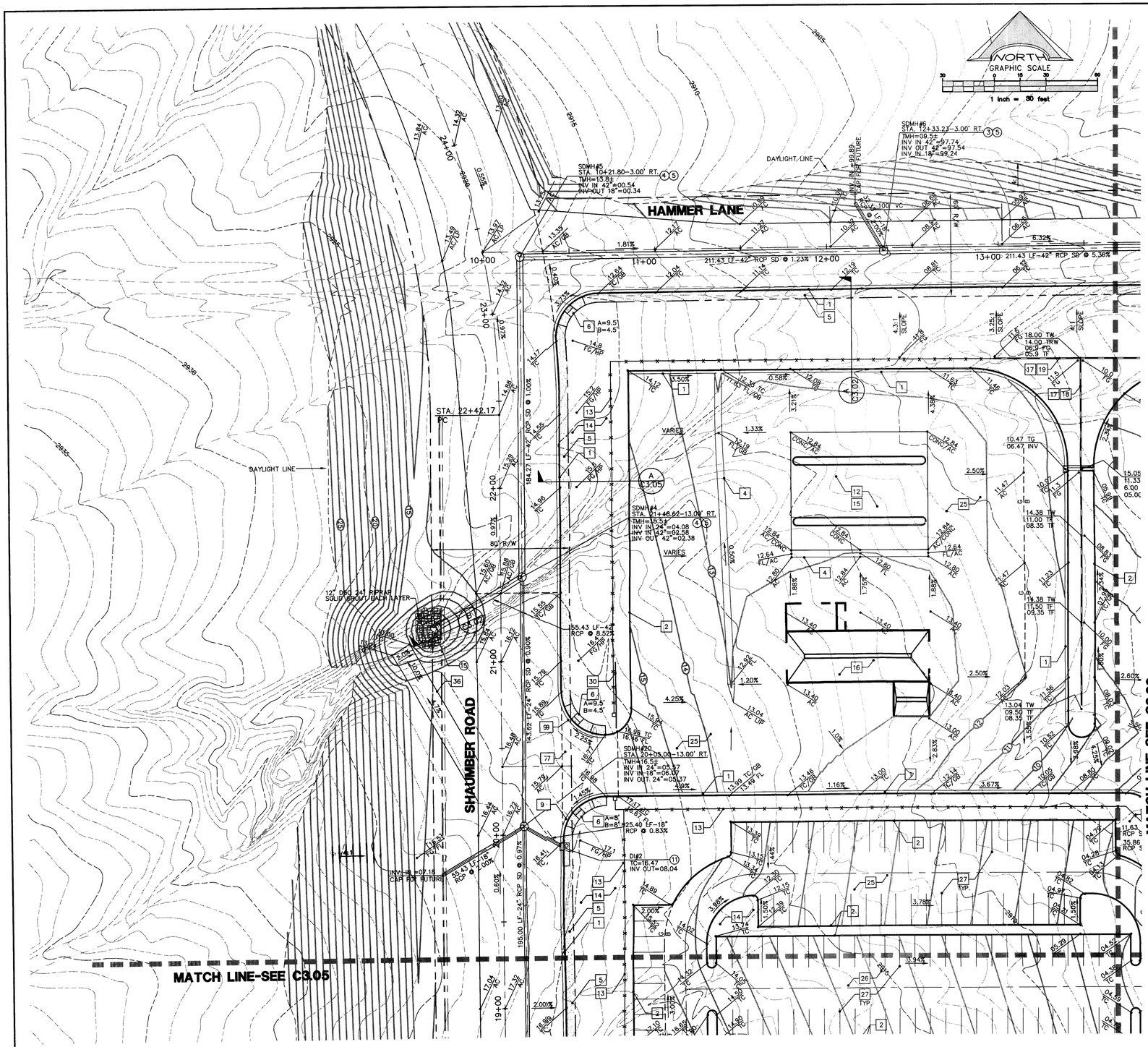
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

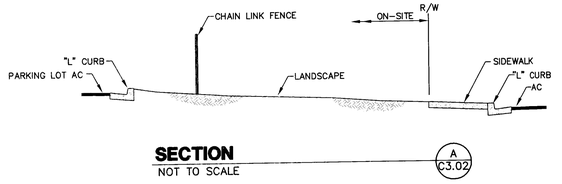
DRAWING TITLE
GENERAL OVERALL SITE PLAN

SHEET NO.
C3.01
SHEET 19 OF 77

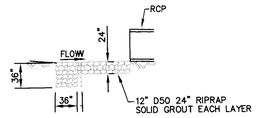
CLV#

HTE#





SECTION
NOT TO SCALE
A C3.02



SECTION
NOT TO SCALE
B C3.02

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01
9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
14. LANDSCAPE AREA, REFER TO LANDSCAPE ARCHITECTURAL PLANS.
15. FUELING AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
16. BIUS WASH AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
17. RIEFER TO SHEET C7.01 AND C7,02 FOR RETAINING WALL STRUCTURAL SECTION AIND NOTES.
18. WALL "A" PROFILE, REFER TO SHEET C7.03.
19. WALL "B" PROFILE, REFER TO SHEET C7.03.
20. WALL "B3" PROFILE, REFER TO SHEET C7.03.
21. WALL "C1" PROFILE, REFER TO SHEET C7.06 AND C7.07.
22. WALL "D" PROFILE, REFER TO SHEET C7.08.
23. CONSTRUCT ELECTRICAL AREA PER ARCHITECTURAL PLANS AND SITE EILECTRICAL PLANS.
24. CONSTRUCT SIDEWALK DRAIN PER C.C.A.U.S.D. NO. 236.
25. INSTALL HEAVY DUTY AC PER DETAIL 8 ON SHEET C6.01.
26. INSTALL LIGHT DUTY AC PER DETAIL 9 ON SHEET C6.01.
27. INSTALL 4" WIDE WHITE PARKING LOT STRIPE.
28. CONSTRUCT BUILDING PAD PER DETAIL 10 ON SHEET C6.01. FOR ADDITIONAL INFORMATION REFER TO PROJECT GEOTECHNICAL REPORT.
29. INSTALL PRECAST CONCRETE BUMPER BLOCK PER C.C.A.U.S.D. NO. 235.
30. EINTRANCE GATE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
31. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235, CASE II.
32. CONSTRUCT DETECTABLE WARNING STRIP PER C.C.A.U.S.D. NO. 235.
33. CONSTRUCT HANDICAP AREA PER DETAIL 4 ON SHEET C6.01.
34. TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
35. CONTRACTOR TO INSTALL TYPE "A" BARRIER RAIL PER NDOT DWG. R-8.6.1 AND BARRIER RAIL REFLECTORS PER NDOT DWG. R-9.2.2.
36. PIROVIDE A 12' WIDE ACCESS ROAD. CONSTRUCT WITH TYPE II COMPACTED TO 95% DENSITY WITH 2% MAX. CROSS SLOPE.

STORM DRAIN KEY NOTES

1. INISTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INNSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INNSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INISTALL A JENSEN PRECAST DI2424448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI4848872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INNSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.
16. INNSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A, INLET SHALL INCLUDE A\ WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

AILL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NCORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALLPINE RIDGE AND HAMMER LANE
ELLEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

REVISIONS

REV	DESCRIPTION	DATE	BY

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
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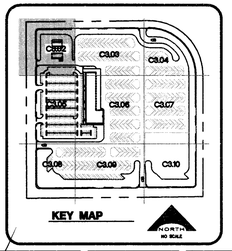
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL
PROFESSIONAL ENGINEER
STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
3/7/11

CCSD PROJECT NO. 1549
CCSD REVIEW BY
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL FINAL SUBMITTAL
K.C. PROJECT NO. 08-816

L. R. NIELSON CONSULTING ENGINEERS, INC.
• STRUCTURAL
• CIVIL
• SURVEY
• PLANNING
6785 West Russell Road, Suite 200
Las Vegas, Nevada 89118
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(702) 451-2296 FAX

KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor
Las Vegas, Nevada 89148
702.367.6900
1701 Directors Boulevard, Suite
Austin, Texas 78744
512.441.8200
www.KGArchitecture.com
LAS VEGAS AUSTIN

this grading plan is part of drainage study #4511 which was received on 2/17/11 and Rejected 3/7/11 Page 5 of 26

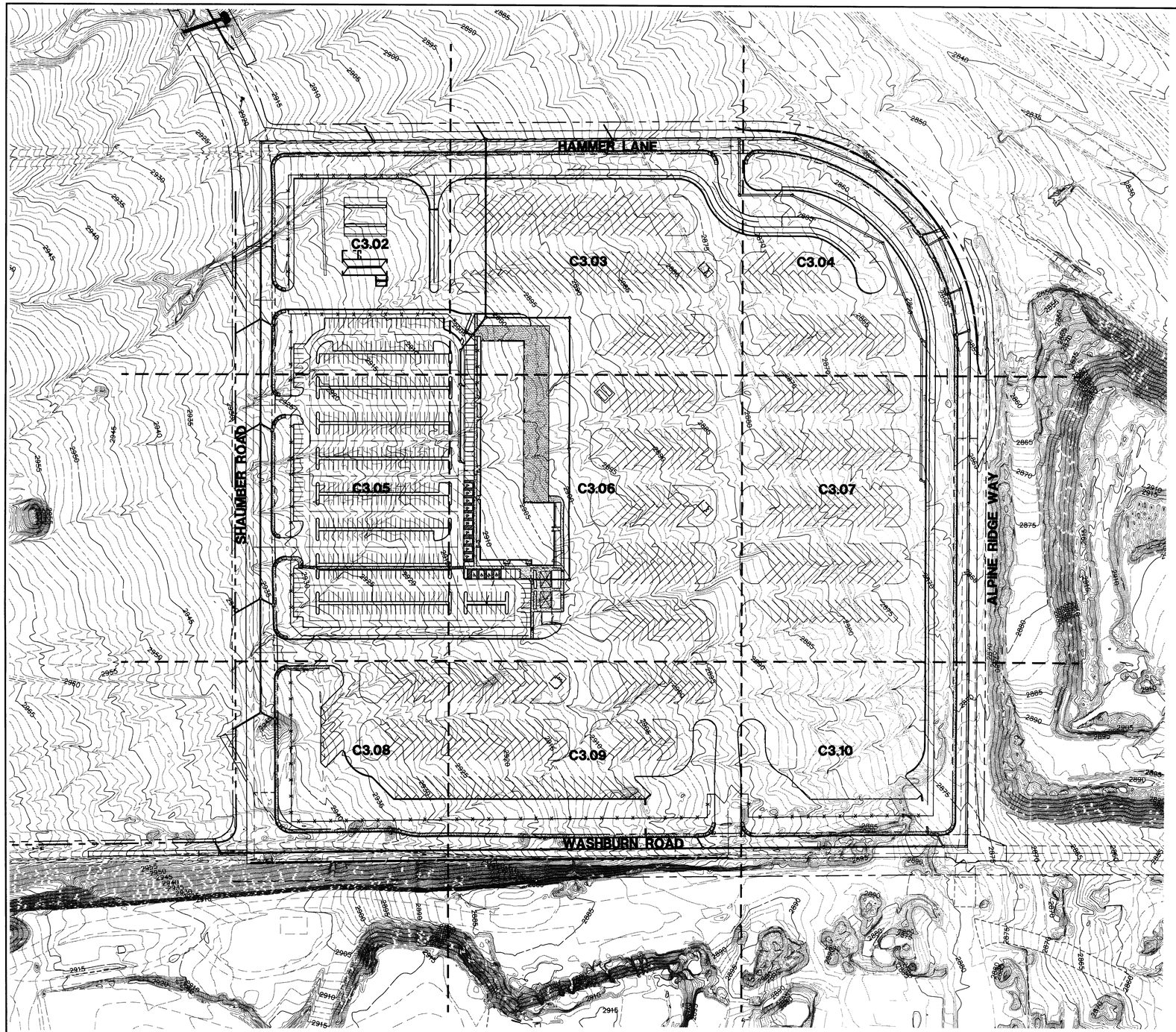
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

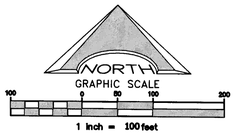
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
GRADING PLAN

SHEET NO.
C3.02
SHEET 20 OF 77

CLV#
HTE#





BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36, TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK SLV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-227-2600
OR
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

ADD 811 TO LOCATE UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
OR
1-702-228-4811
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Rjected on 3/7/11. Page 4 of 26

SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

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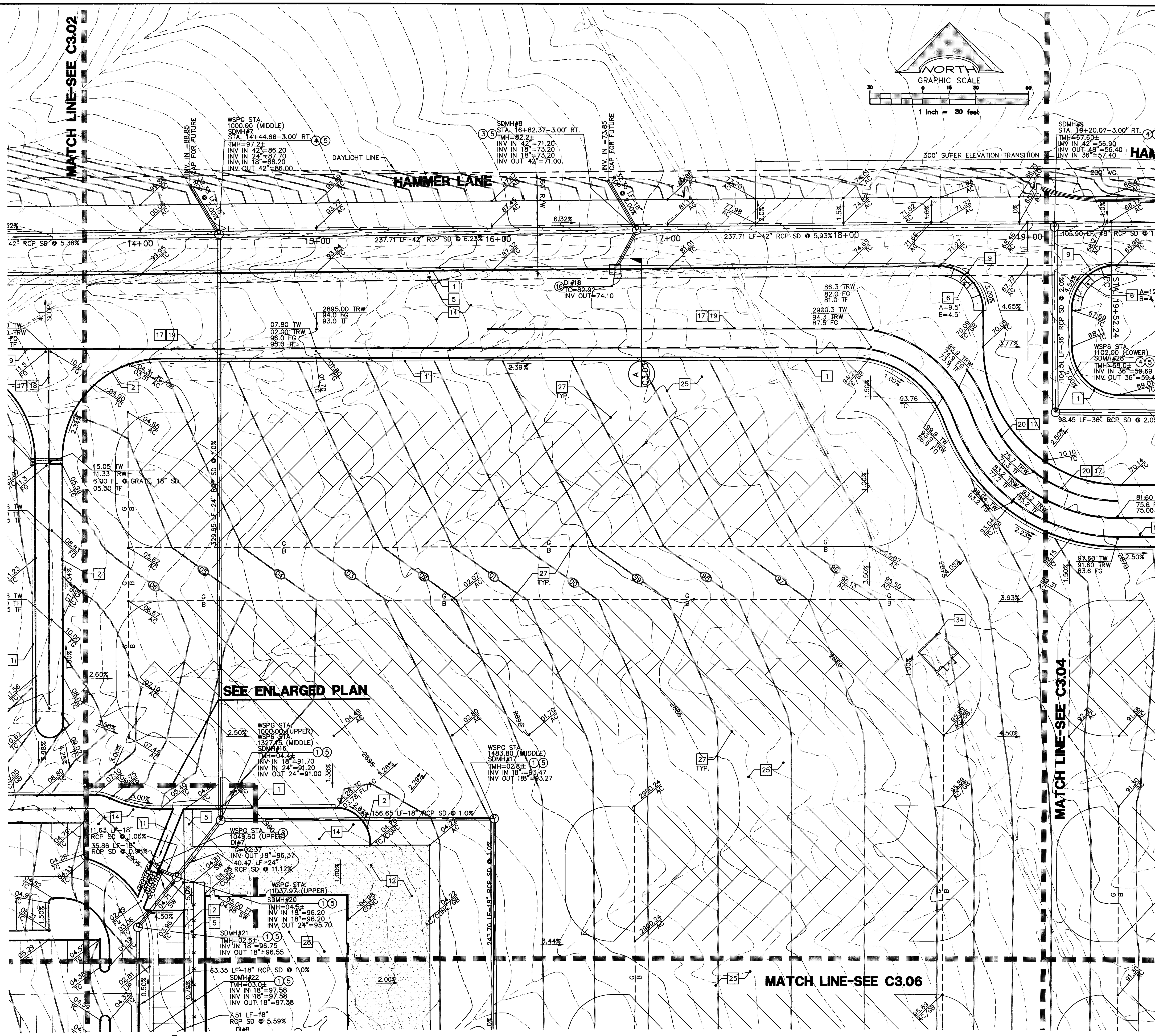
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

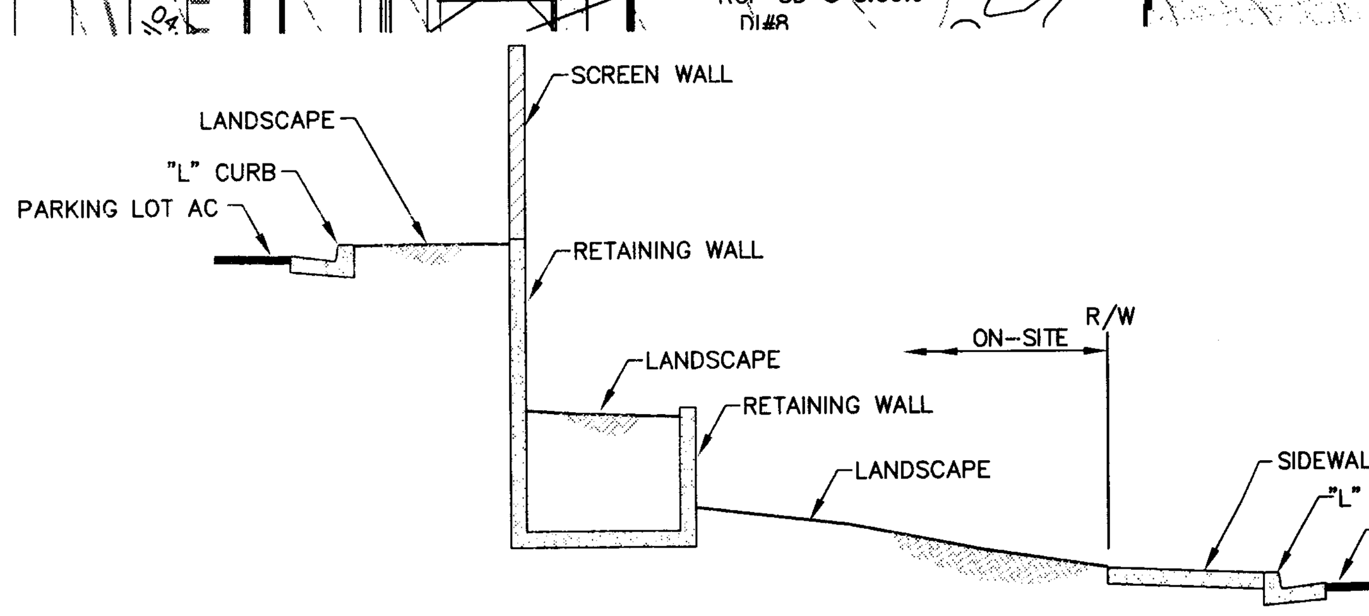
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
GENERAL OVERALL SITE PLAN

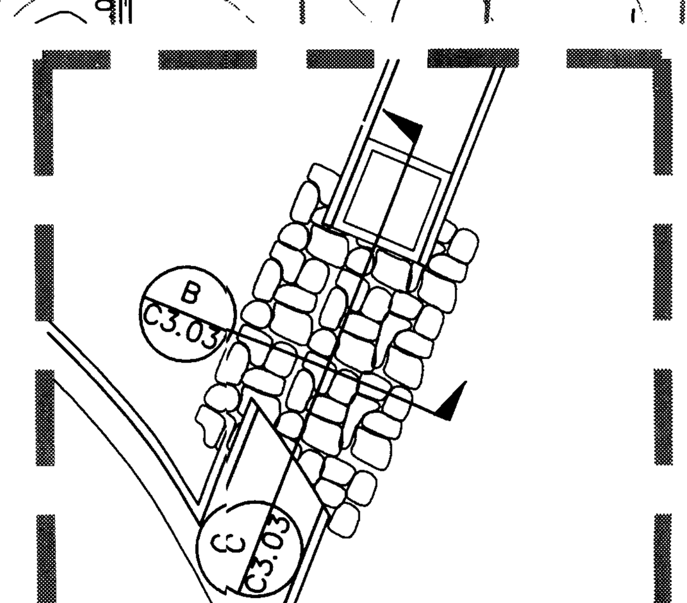
SHEET NO.
C3.01
SHEET 19 OF 77

CLV#
HTE#

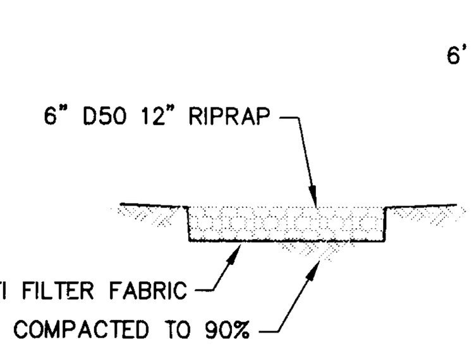




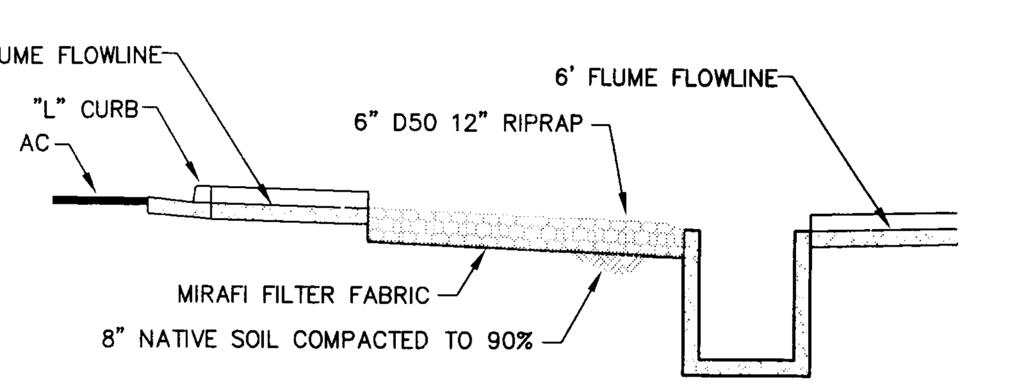
SECTION A / C3.03
NOT TO SCALE



ENLARGED PLAN
SCALE 1"=10'



SECTION B / C3.03
NOT TO SCALE



SECTION C / C3.03
NOT TO SCALE

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01
9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
14. LANDSCAPE AREA, REFER TO LANDSCAPE ARCHITECTURAL PLANS.
15. FUELING AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
16. BUS WASH AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
17. REFER TO SHEET C7.01 AND C7,02 FOR RETAINING WALL STRUCTURAL SECTION AND NOTES.
18. WALL "A" PROFILE, REFER TO SHEET C7.03.
19. WALL "B" PROFILE, REFER TO SHEET C7.03.
20. WALL "B3" PROFILE, REFER TO SHEET C7.03.
21. WALL "C1" PROFILE, REFER TO SHEET C7.06 AND C7.07.
22. WALL "D" PROFILE, REFER TO SHEET C7.08.
23. CONSTRUCT ELECTRICAL AREA PER ARCHITECTURAL PLANS AND SITE ELECTRICAL PLANS.
24. CONSTRUCT SIDEWALK DRAIN PER C.C.A.U.S.D. NO. 236.
25. INSTALL HEAVY DUTY AC PER DETAIL 8 ON SHEET C6.01.
26. INSTALL LIGHT DUTY AC PER DETAIL 9 ON SHEET C6.01.
27. INSTALL 4" WIDE WHITE PARKING LOT STRIPE.
28. CONSTRUCT BUILDING PAD PER DETAIL 10 ON SHEET C6.01. FOR ADDITIONAL INFORMATION REFER TO PROJECT GEOTECHNICAL REPORT.
29. INSTALL PRECAST CONCRETE BUMPER BLOCK PER C.C.A.U.S.D. NO. 235.
30. ENTRANCE GATE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
31. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235, CASE II.
32. CONSTRUCT DETECTABLE WARNING STRIP PER C.C.A.U.S.D. NO. 235.
33. CONSTRUCT HANDICAP AREA PER DETAIL 4 ON SHEET C6.01.
34. TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
35. CONTRACTOR TO INSTALL TYPE "A" BARRIER RAIL PER NDOT DWG. R-8.6.1 AND BARRIER RAIL REFLECTORS PER NDOT DWG. R-9.2.2.
36. PROVIDE A 12' WIDE ACCESS ROAD. CONSTRUCT WITH TYPE II COMPACTED TO 95% DENSITY WITH 2% MAX. CROSS SLOPE.

STORM DRAIN KEY NOTES

(1) INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
(2) INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
(3) INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
(4) INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
(5) INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
(6) INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(7) INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
(8) INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
(9) INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(10) INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(11) INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(12) INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(13) INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(14) INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
(15) INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
(16) INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 6 of 26.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

REVISIONS			
REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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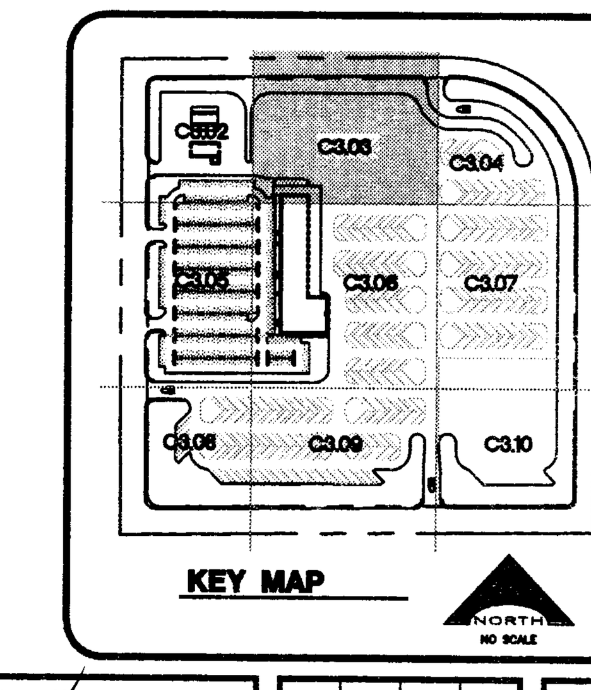
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS
AND 1-702-229-6611 LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



KEY MAP

SEAL
PROFESSIONAL ENGINEER · STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/17

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
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CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE
LAS VEGAS, NEVADA 89121

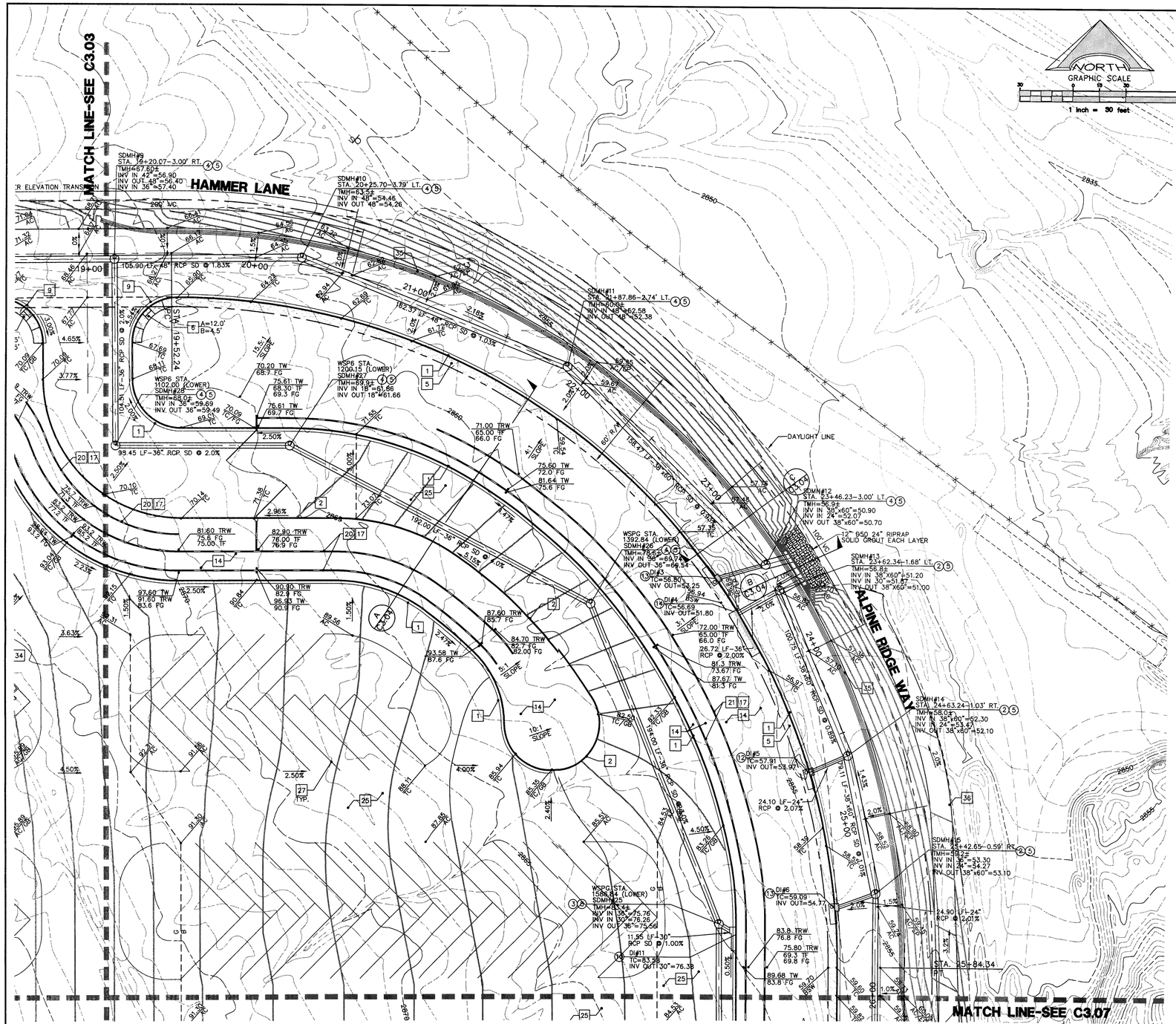
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

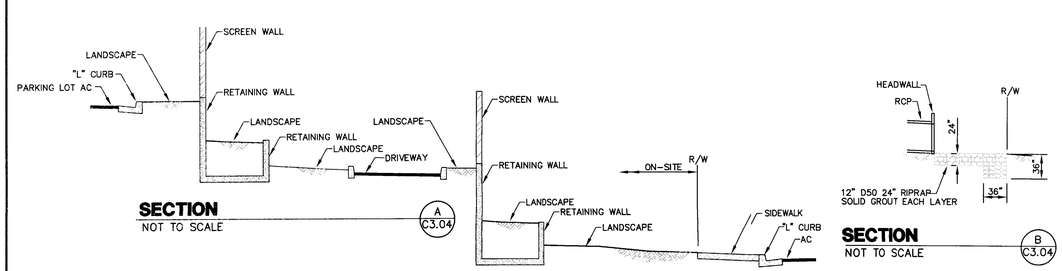
DRAWING TITLE
GRADING PLAN

SHEET NO.
C3.03
SHEET 21 OF 77

CLV#

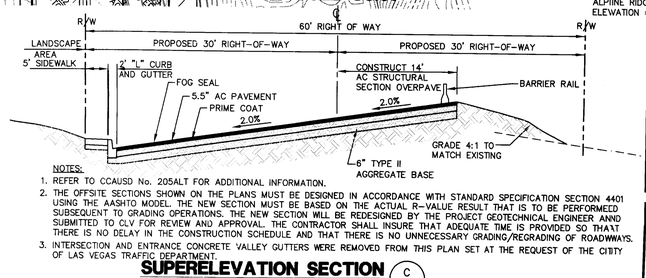
HTE#





SECTION
NOT TO SCALE
A C3.04

SECTION
NOT TO SCALE
B C3.04



SUPERELEVATION SECTION
NOT TO SCALE
C C3.04

NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 4401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER ANND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITTY OF LAS VEGAS TRAFFIC DEPARTMENT.

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01
9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
14. LANDSCAPE AREA, REFER TO LANDSCAPE ARCHITECTURAL PLANS.
15. FUELING AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
16. BUS WASH AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
17. REFER TO SHEET C7.01 AND C7,02 FOR RETAINING WALL STRUCTURAL SECTION AND NOTES.
18. WALL "A" PROFILE, REFER TO SHEET C7.03.
19. WALL "B" PROFILE, REFER TO SHEET C7.03.
20. WALL "B3" PROFILE, REFER TO SHEET C7.03.
21. WALL "C1" PROFILE, REFER TO SHEET C7.06 AND C7.07.
22. WALL "D" PROFILE, REFER TO SHEET C7.08.
23. COINSTRUCT ELECTRICAL AREA PER ARCHITECTURAL PLANS AND SITE ELECTRICAL PLANS.
24. COINSTRUCT SIDEWALK DRAIN PER C.C.A.U.S.D. NO. 236.
25. INSTALL HEAVY DUTY AC PER DETAIL 8 ON SHEET C6.01.
26. INSTALL LIGHT DUTY AC PER DETAIL 9 ON SHEET C6.01.
27. INSTALL 4" WDE WHITE PARKING LOT STRIPE.
28. COINSTRUCT BUILDING PAD PER DETAIL 10 ON SHEET C6.01. FOR ADDITIONAL INFORMATION REFER TO PROJECT GEOTECHNICAL REPORT.
29. INSTALL PRECAST CONCRETE BUMPER BLOCK PER C.C.A.U.S.D. NO. 235.
30. ENTRANCE GATE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
31. COINSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235, CASE II.
32. CONSTRUCT DETECTABLE WARNING STRIP PER C.C.A.U.S.D. NO. 235.
33. CONSTRUCT HANDICAP AREA PER DETAIL 4 ON SHEET C6.01.
34. TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
35. CONTRACTOR TO INSTALL TYPE "A" BARRIER RAIL PER NDOT DWG. R-8.6.1 AND BARRIER RAIL REFLECTORS PER NDOT DWG. R-9.2.2.
36. PROVIDE A 12' WIDE ACCESS ROAD. CONSTRUCT WITH TYPE II COMPACTED TO 95% DENSITY WITH 2% MAX. CROSS SLOPE.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
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14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLAIRK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE NORTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEWATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

This grading plan is part of drainage study #4511 which was received on 2/17/11 and revised on 3/7/11. Page 7 of 26

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 3200301750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

REVISIONS

REV	DESCRIPTION	DATE	BY

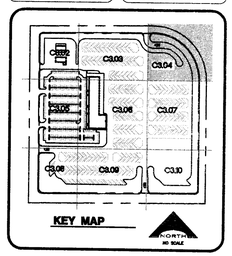
DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you DIG
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS IT'S QUICK!
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6011 AS NEVADA AREA CONSTRUCTION TRAFFIC SYSTEMS



SEAL
REGISTERED PROFESSIONAL ENGINEER
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
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6765 West Russell Road, Suite 200 89118
Las Vegas, Nevada
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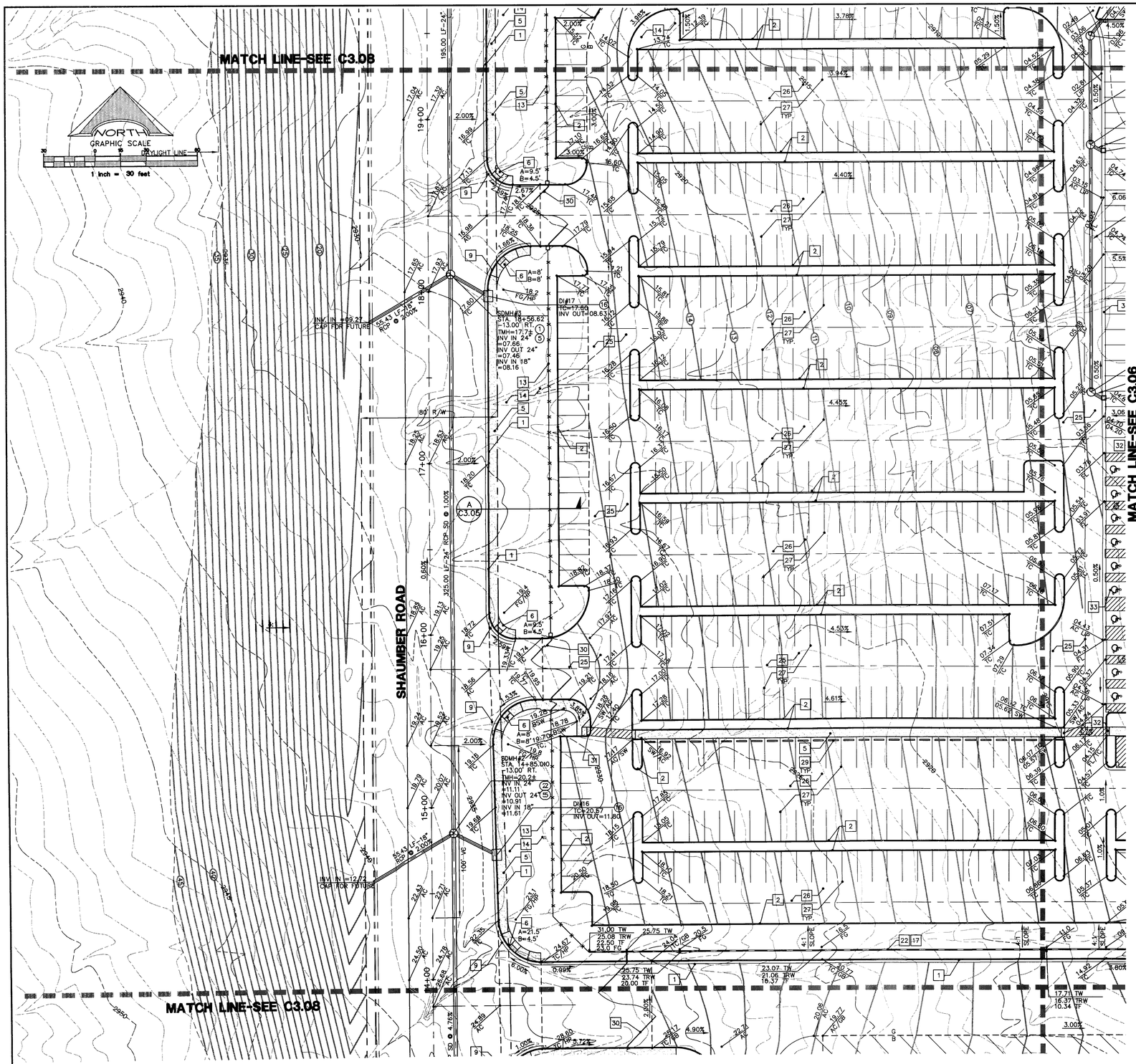
(702) 451-2296 FAX

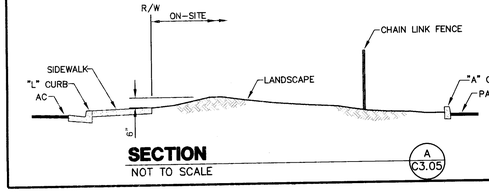
KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor, Las Vegas, Nevada 89148
702.367.6900
1701 Directors Boulevard, Suite 770 Austin, Texas 78744
512.441.8200
www.KGAarchitecture.com
LAS VEGAS AUSTIN

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY
DRAWING TITLE: GRADING PLAN

SHEET NO. C3.04
SHEET 22 OF 77
CLV#
HTE#





CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01
9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
14. LANDSCAPE AREA, REFER TO LANDSCAPE ARCHITECTURAL PLANS.
15. FUELING AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
16. BUS WASH AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
17. REFER TO SHEET C7.01 AND C7.02 FOR RETAINING WALL STRUCTURAL SECTION AND NOTES.
18. WALL "A" PROFILE, REFER TO SHEET C7.03.
19. WALL "B" PROFILE, REFER TO SHEET C7.03.
20. WALL "B3" PROFILE, REFER TO SHEET C7.03.
21. WALL "C1" PROFILE, REFER TO SHEET C7.06 AND C7.07.
22. WALL "D" PROFILE, REFER TO SHEET C7.08.
23. CONSTRUCT ELECTRICAL AREA PER ARCHITECTURAL PLANS AND SITE ELECTRICAL PLANS.
24. CONSTRUCT SIDEWALK DRAIN PER C.C.A.U.S.D. NO. 236.
25. INSTALL HEAVY DUTY AC PER DETAIL 8 ON SHEET C6.01.
26. INSTALL LIGHT DUTY AC PER DETAIL 9 ON SHEET C6.01.
27. INSTALL 4" WIDE WHITE PARKING LOT STRIPE.
28. CONSTRUCT BUILDING PAD PER DETAIL 10 ON SHEET C6.01. FOR ADDITIONAL INFORMATION REFER TO PROJECT GEOTECHNICAL REPORT.
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30. ENTRANCE GATE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
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33. CONSTRUCT HANDICAP AREA PER DETAIL 4 ON SHEET C6.01.
34. TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
35. CONTRACTOR TO INSTALL TYPE "A" BARRIER RAIL PER NDOT DWG. R-8.6.1 AND BARRIER RAIL REFLECTORS PER NDOT DWG. R-9.2.2.
36. PROVIDE A 12' WIDE ACCESS ROAD. CONSTRUCT WITH TYPE II COMPACTED TO 95% DENSITY WITH 2% MAX. CROSS SLOPE.

STORM DRAIN KEY NOTES

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2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
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5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
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8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
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BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITYY OF LAS VEGAS BENCHMARK SLV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHEAST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELE'VATION = 2951.24 FEET (869.059 METERS) NAVD 1988 (CVD)

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

This grading plan is part of drainage study # 4511 which was received on 2/17/11 and Rejected on 3/7/11 Page 8 of 25

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

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1-702-455-7511
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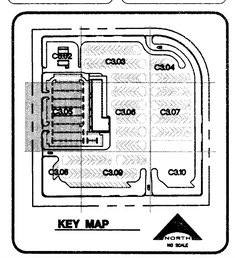
OR
1-702-229-5011
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
NO. 009898
2/17/11

CCSD PROJECT NO.
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
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- CIVIL
- SURVEY
- PLANNING
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Las Vegas, Nevada 89118
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(702) 451-2266 FAX

KGA ARCHITECTURE
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2701 Directors Boulevard, Suite 770
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LAS VEGAS AUSTIN
www.KGAarchitecture.com

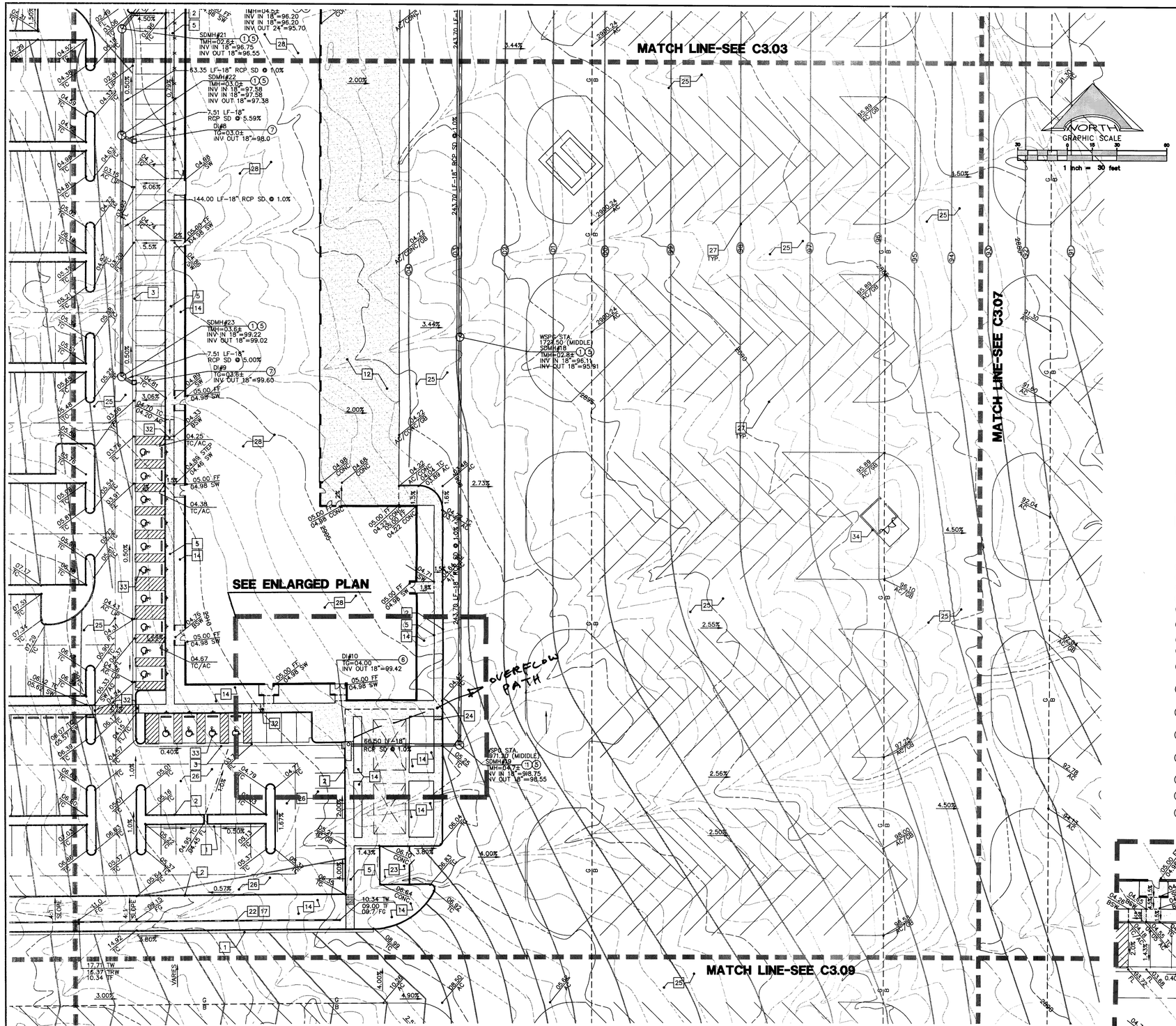
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
GRADING PLAN

SHEET NO.
C3.05
SHEET 23 OF 77

CLV#
HTE#



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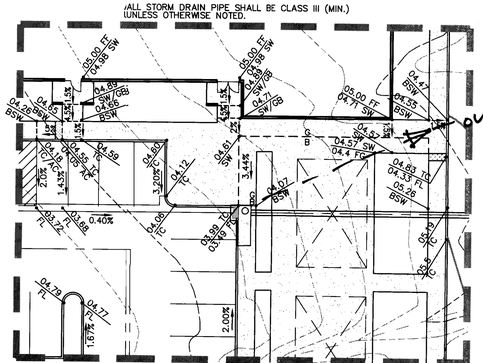

ENLARGED PLAN
SCALE 1"=20'

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REV	DESCRIPTION	DATE	BY

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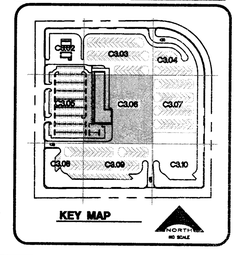
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6411
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/17/11

CCSD PROJECT NO.	
CCSD REVIEW	
APPROVED BY	
DATE	
DRAWN BY	
CHECKED BY	
DATE	DECEMBER 21, 2010
SUBMITTAL	PRE-BID SUBMITTAL
A/E PROJECT NO.	08-816

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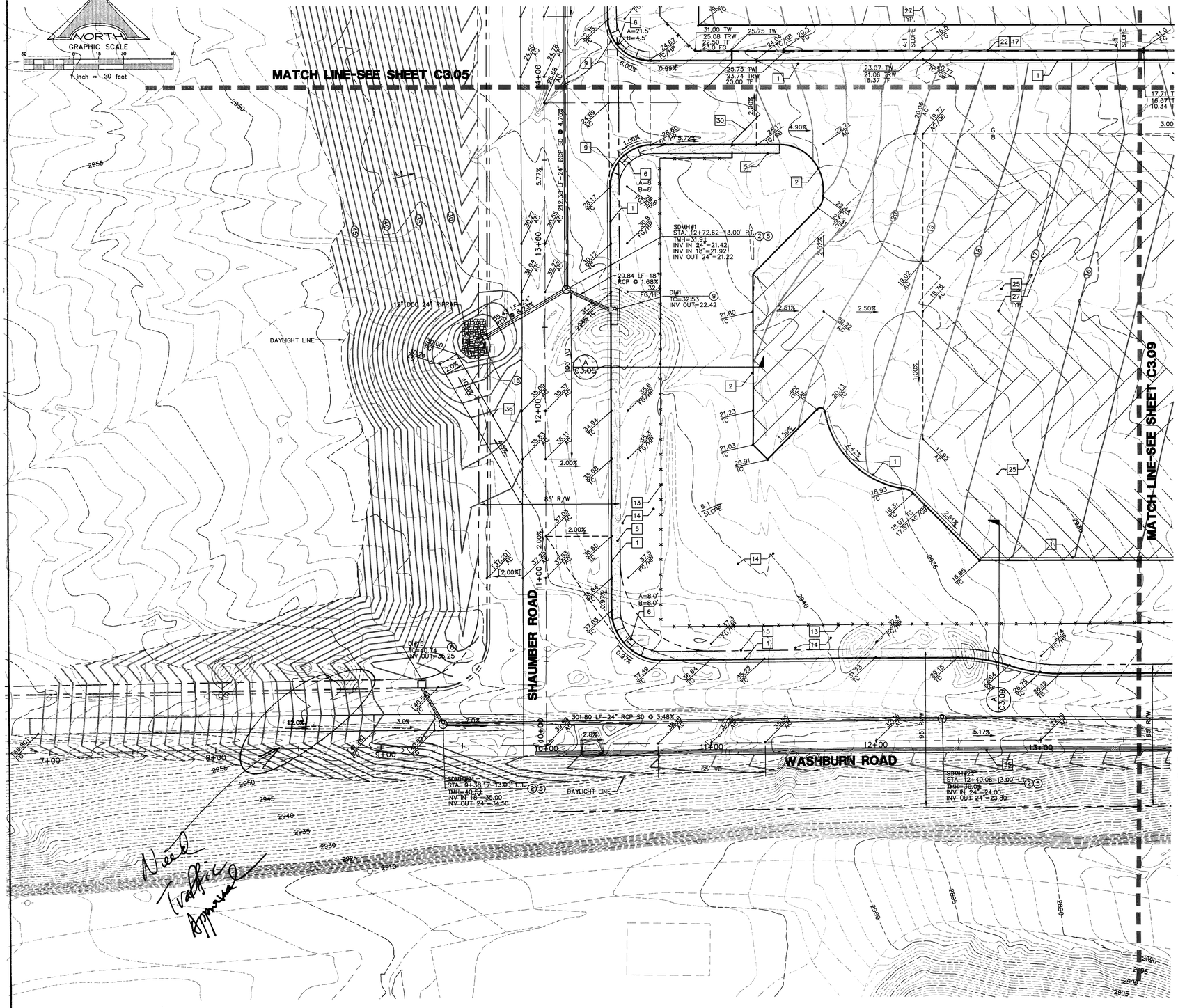
Las Vegas, Nevada 89148
702.367.6900
1701 Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.8200
LAS VEGAS AUSTIN
www.kgarchitecture.com

PROJECT: CLARK COUNTY SCHOOL DISTRICT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY
LOCATION: NW QUADRANT OF ALPINE RIDGE AND HAMMER LANE
LAS VEGAS, NEVADA 89121
DESIGN MANAGEMENT / PLANNING AND DESIGN
DRAWING TITLE: GRADING PLAN

This grading plan is part of drainage study # 457.1 which was received on 3/7/11 and approved on 3/11/11.

SHEET NO. C3.06
SHEET 24 OF 77

CLV#
HTE#



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1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
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7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
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9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C6.01
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11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
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2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
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7. INSTALL A JENSEN PRECAST DI2424448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
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ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK SLV99 3816
AA RIVET AND PLATE IN A FENCE POST BASE AT THE NORTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE "X". A ZONE "X" IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

Neal Traffic Approval

This grading plan is part of drainage study #4511 which was received on 2/17/11 and Revised on 3/7/11 Page 11 of 25

REVISIONS

REV	DESCRIPTION	DATE	BY

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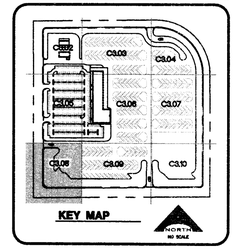

SEAL: VERNON R. HARKINS, REGISTERED PROFESSIONAL ENGINEER-STATE OF NEVADA, EXP 6/30/11, CIVIL, NO. 009898

CCSD PROJECT NO.	10-03
CCSD REVIEW	
APPROVED BY	
DATE	
DATE	DECEMBER 21, 2010
DRAWN BY	
CHECKED BY	
SUBMITTAL	PRE-BID SUBMITTAL
A/E PROJECT NO.	08-816

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LAS VEGAS AUSTIN

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

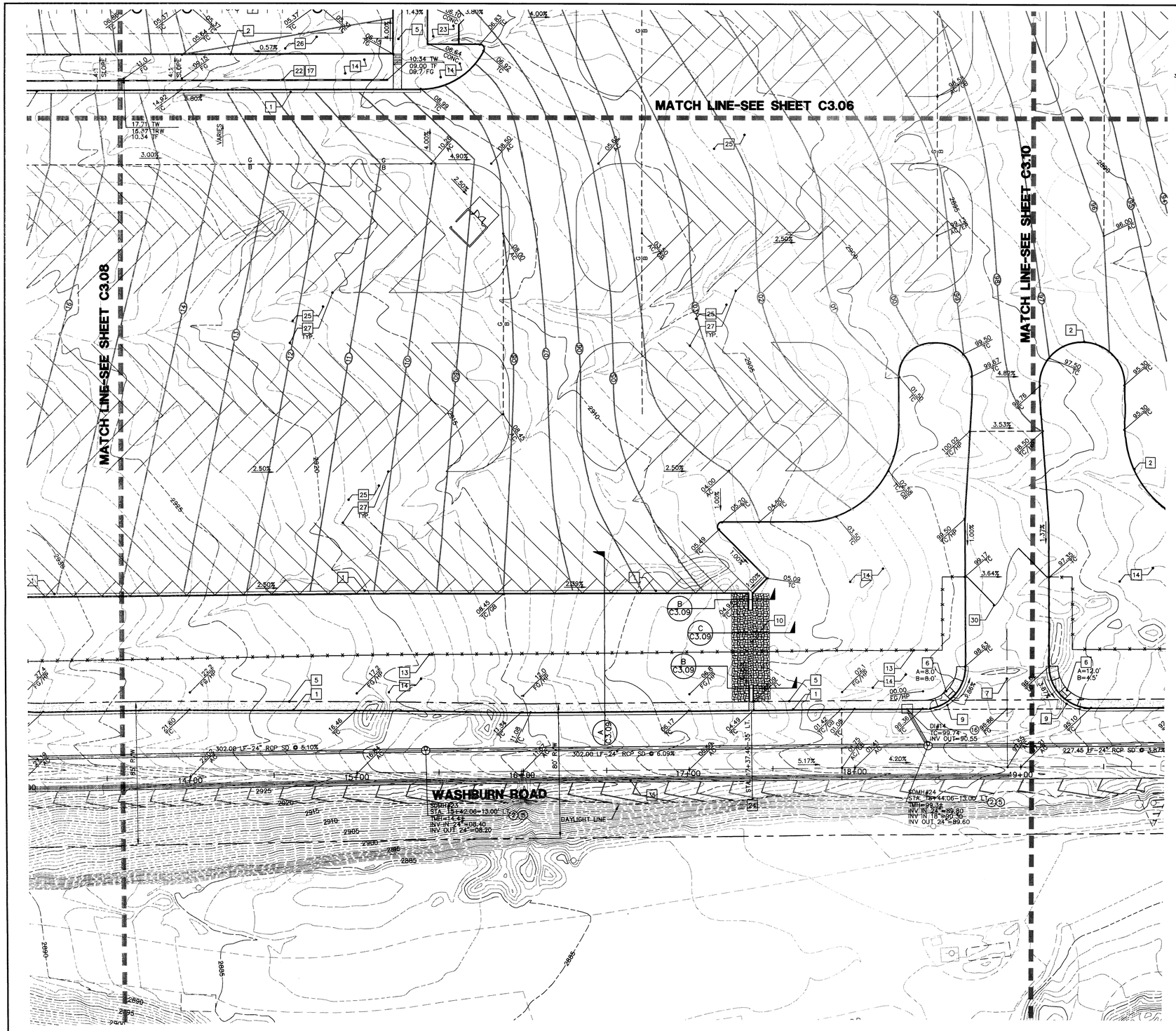
PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: GRADING PLAN

SHEET NO. C3.08
SHEET 26 OF 77

CLV#

HTE#



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CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
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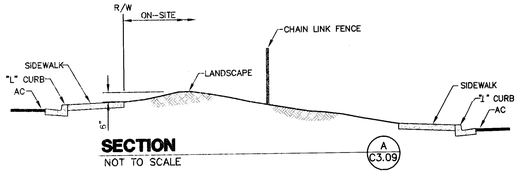

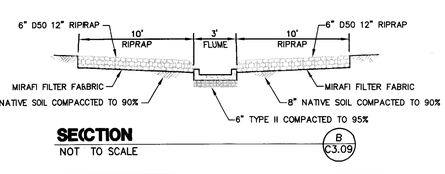

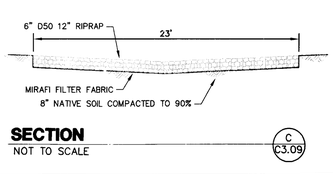

REVISIONS

REV	DESCRIPTION	DATE	BY

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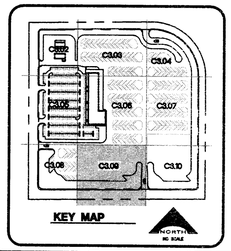

SEAL
ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP. 6/30/11
CIVIL
No. 009898
2/17/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 09-516

L. R. NELSON CONSULTING ENGINEERS, INC.
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512.328.8200
www.KGAarchitecture.com
AUSTIN

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and rejected on 3/7/11 Page 12 of 26

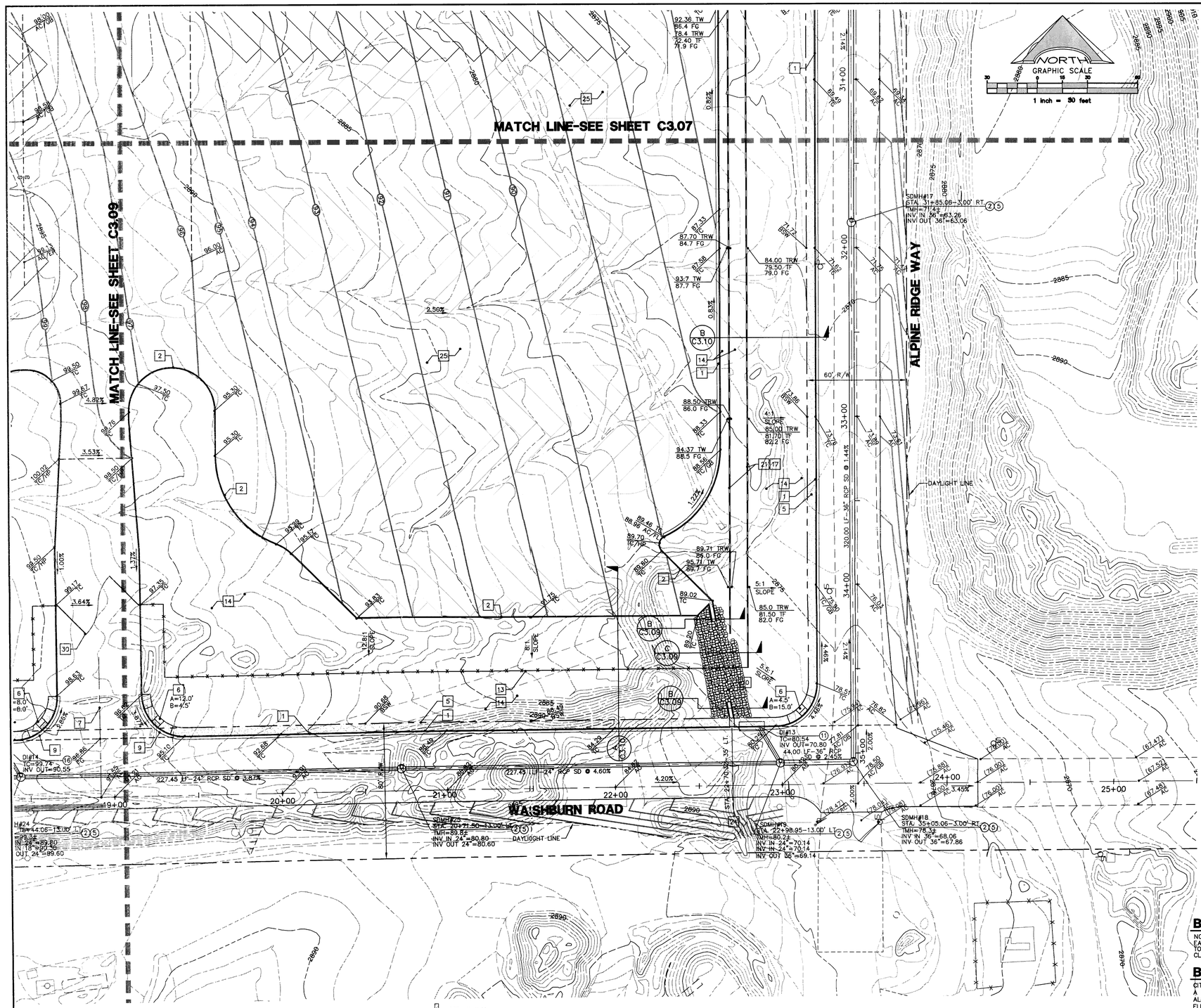
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 MCLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: GRADING PLAN

SHEET NO. C3.09
SHEET 27 OF 77

CLV#
HTE#



CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01
9. CONSTRUCT NON-HOLDING "L" CURB AND GUTTER PER DETAIL 11 ON SHEET C
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.
12. INSTALL ON-SITE CONCRETE APRON PER DETAIL 7 ON SHEET C6.01.
13. CHAIN LINK FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
14. LANDSCAPE AREA, REFER TO LANDSCAPE ARCHITECTURAL PLANS.
15. FUELING AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
16. BUS WASH AREA, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
17. REFER TO SHEET C7.01 AND C7.02 FOR RETAINING WALL STRUCTURAL SECTION AND NOTES.
18. WALL "A" PROFILE, REFER TO SHEET C7.03.
19. WALL "B" PROFILE, REFER TO SHEET C7.03.
20. WALL "B3" PROFILE, REFER TO SHEET C7.03.
21. WALL "C1" PROFILE, REFER TO SHEET C7.06 AND C7.07.
22. WALL "D" PROFILE, REFER TO SHEET C7.08.
23. CONSTRUCT ELECTRICAL AREA PER ARCHITECTURAL PLANS AND SITE ELECTRICAL PLANS.
24. CONSTRUCT SIDEWALK DRAIN PER C.C.A.U.S.D. NO. 236.
25. INSTALL HEAVY DUTY AC PER DETAIL 8 ON SHEET C6.01.
26. INSTALL LIGHT DUTY AC PER DETAIL 9 ON SHEET C6.01.
27. INSTALL 4" WIDE WHITE PARKING LOT STRIPE.
28. CONSTRUCT BUILDING PAD PER DETAIL 10 ON SHEET C6.01. FOR ADDITIONAL INFORMATION REFER TO PROJECT GEOTECHNICAL REPORT.
29. INSTALL PRECAST CONCRETE BUMPER BLOCK PER C.C.A.U.S.D. NO. 235.
30. ENTRANCE GATE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
31. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235, CASE II.
32. CONSTRUCT DETECTABLE WARNING STRIP PER C.C.A.U.S.D. NO. 235.
33. CONSTRUCT HANDICAP AREA PER DETAIL 4 ON SHEET C6.01.
34. TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS AND ADDITIONAL INFORMATION.
35. CONTRACTOR TO INSTALL TYPE "A" BARRIER RAIL PER NDOT DWG. R-8.6.1 AND BARRIER RAIL REFLECTORS PER NDOT DWG. R-9.2.2.
36. PROVIDE A 12' WIDE ACCESS ROAD. CONSTRUCT WITH TYPE II COMPACTED TO 95% DENSITY WITH 2% MAX. CROSS SLOPE.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NOTE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 32003C1750 E, REVISED SEPTEMBER 27, 2002 THE SITE IS LOCATED WITHIN A ZONE 'X'. A ZONE 'X' IS DESCRIBED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF LAS VEGAS PER

VERNON R. HARKINS P.E. No. 9898 DATE

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Reviewed on 3/7/11. Page 13 of 76

REVISIONS

REV	DESCRIPTION	DATE	BY

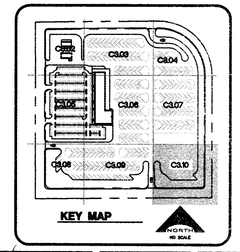
DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
811
1-800-227-2600
OR
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEM AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL
ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/17/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY

SUBMITTAL
PROJECT NO. 08-816

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(702) 451-2296 FAX
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• CIVIL
• SURVEY
• PLANNING

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1701 Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.8200
www.KGAarchitecture.com
LAS VEGAS AUSTIN

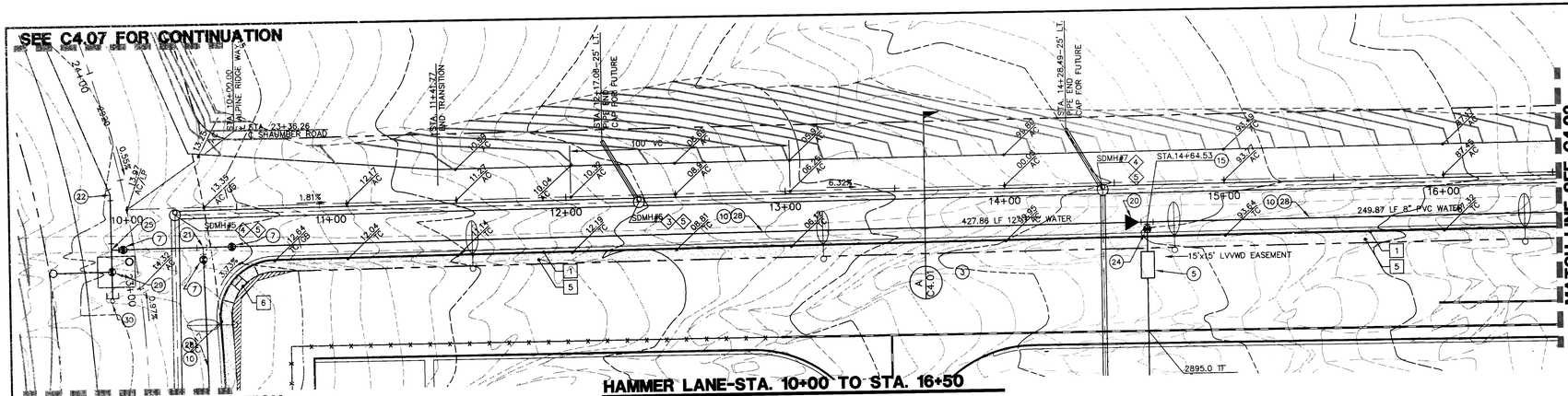
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

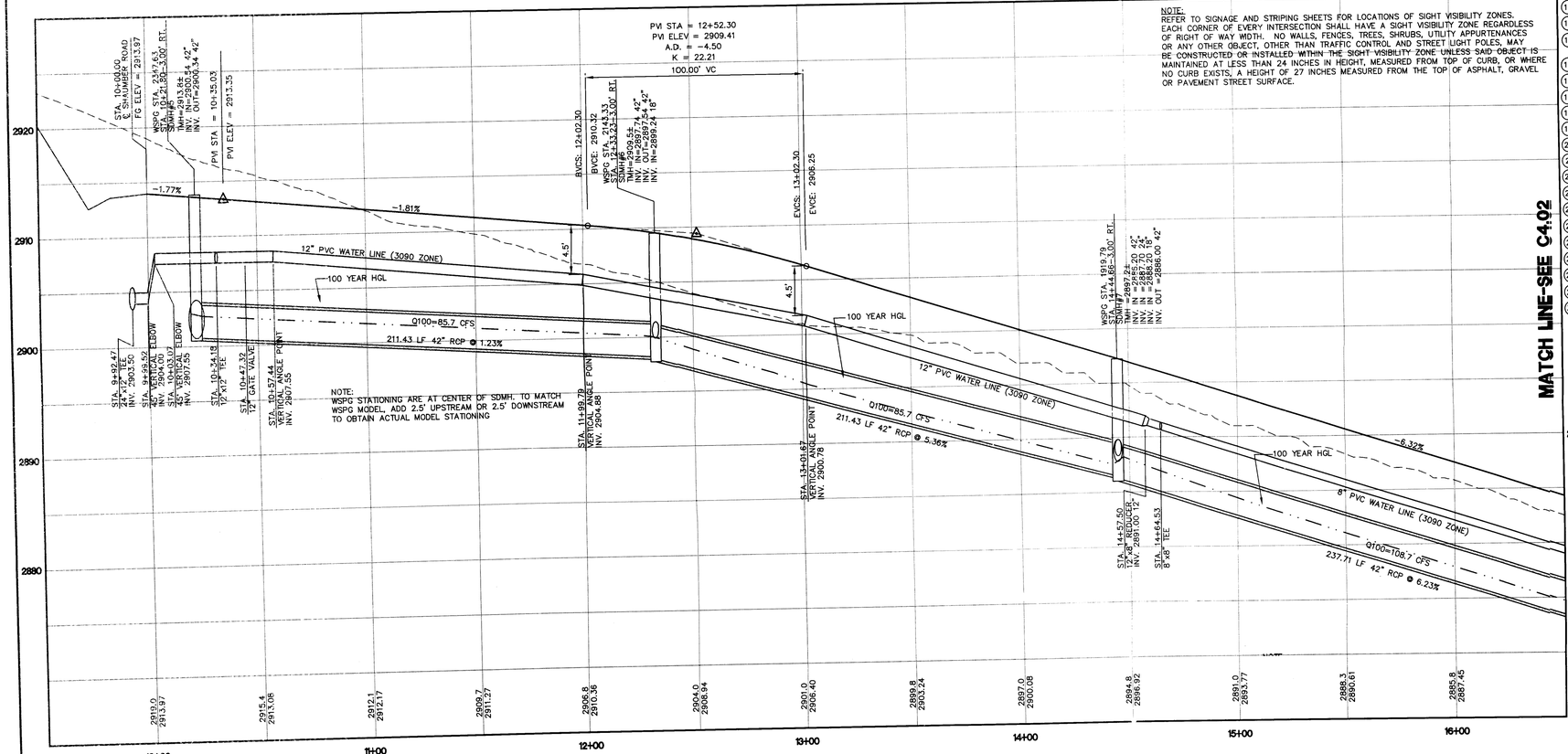
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

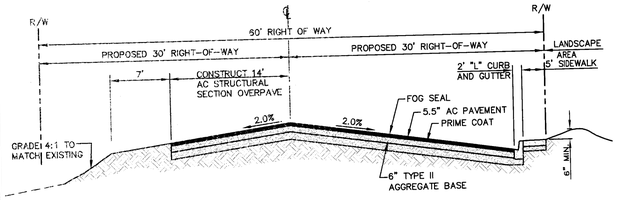
DRAWING TITLE
GRADING PLAN

SHEET NO.
C3.10
SHEET 28 OF 77

CLV#
HTE#







NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

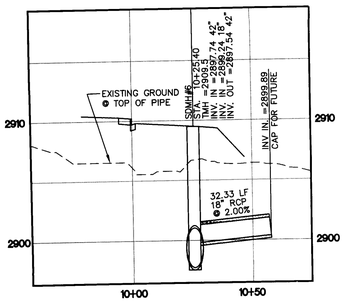
HAMMER LANE AND ALPINE RIDGE WAY

A / C4.01

NOT TO SCALE

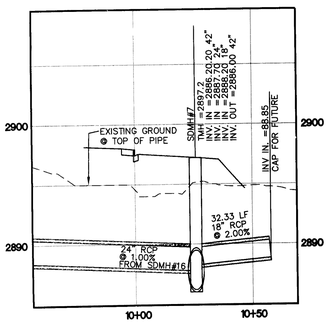
PROFILE

SCALE: 1"=30' HORIZ.
1"=6' VERT.



LATERAL AT SDMH#6

SCALE: 1"=30' HORIZ.
1"=6' VERT.



LATERAL AT SDMH#7

SCALE: 1"=30' HORIZ.
1"=6' VERT.

NOTE:
REFER TO SIGNAGE AND STRIPING SHEETS FOR LOCATIONS OF SIGHT VISIBILITY ZONES. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY ZONE REGARDLESS OF RIGHT OF WAY WIDTH. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
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16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO. 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
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7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 5 ON SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36, TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6.
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NORTH
GRAPHIC SCALE
30 0 15 30 60
1 Inch = 30 feet

DISCLAIMER NOTE

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or
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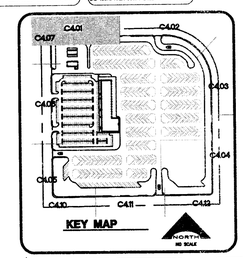
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

FIXED WIRING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



REVISIONS

REV	DESCRIPTION	DATE	BY

SEAL — VERNON R. HARKINS, EXP 6/30/11, CIVIL, No. 009998, STATE OF NEVADA, PROFESSIONAL ENGINEER — 2/17/11

L. R. NELSON CONSULTING ENGINEERS, INC.
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512.441.8200
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9075 West Diablo Drive, Suite 150
Las Vegas, Nevada 89148
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www.KGArchitecture.com
LAS VEGAS

CCSD PROJECT NO. 1549
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APPROVED BY
DATE
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A/E PROJECT NO. 08-816

DATE: DECEMBER 21, 2010
DRAWN BY
FINAL GRADING SUBMITTAL

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

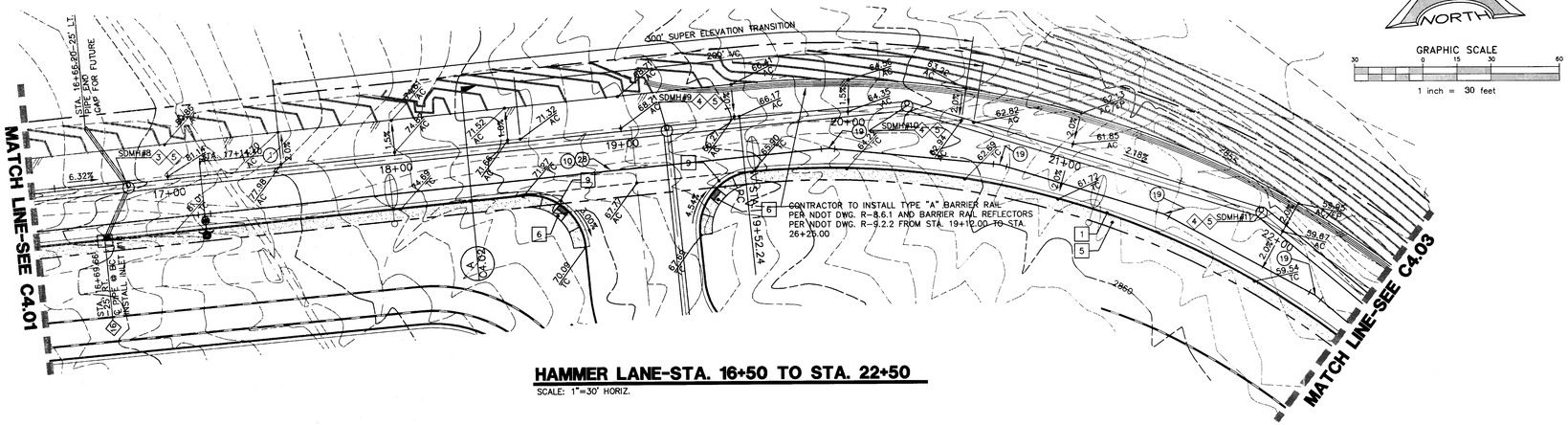
PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: PLAN AND PROFILE-HAMMER LANE

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Page 14 of 26

SHEET NO. C4.01
SHEET 30 OF 77

CLV#
HTE#



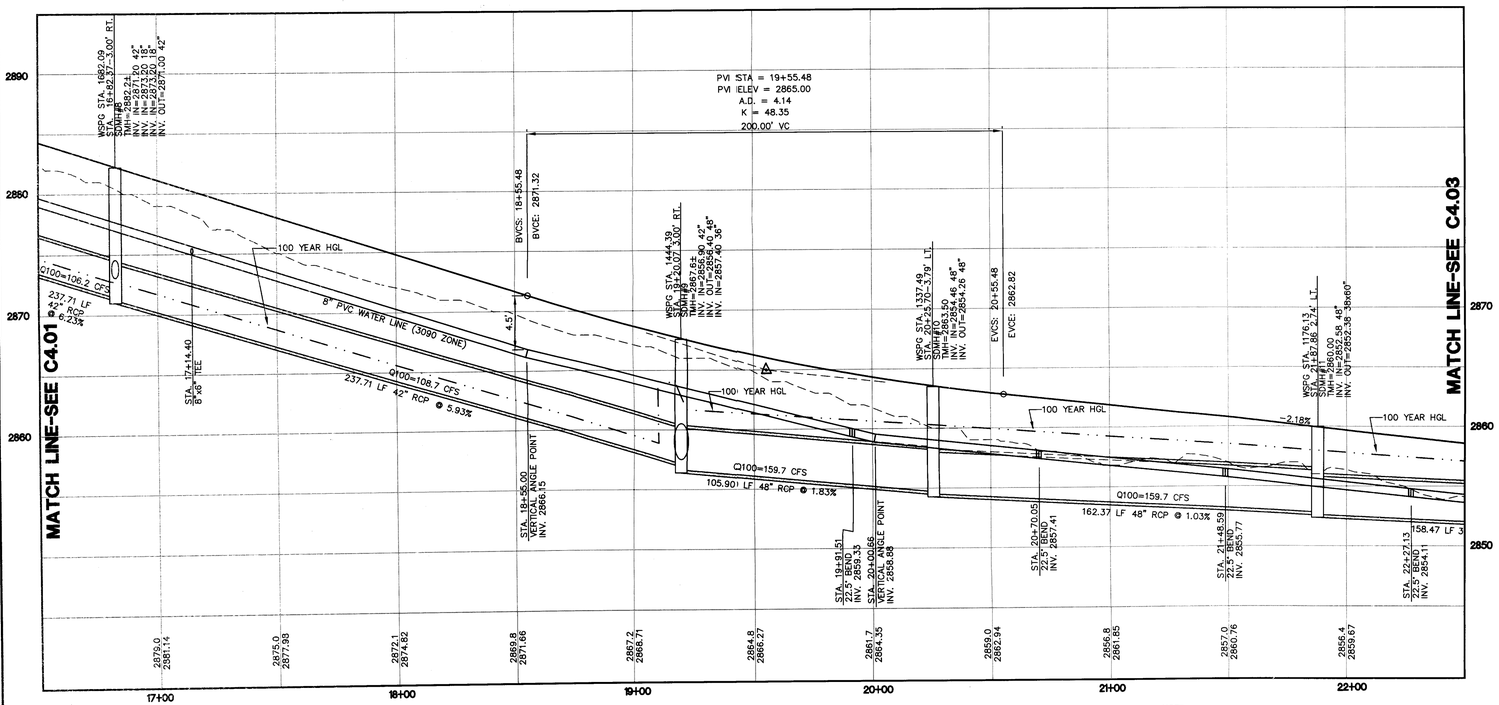
HAMMER LANE-STA. 16+50 TO STA. 22+50

SCALE: 1"=30' HORIZ.

GRAPHIC SCALE

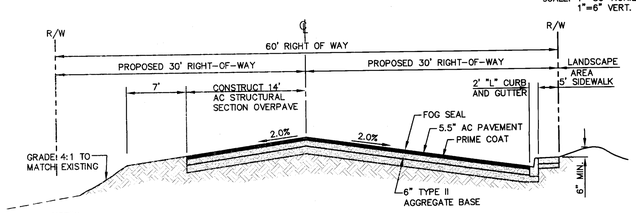
30 0 15 30 60

1 inch = 30 feet



PROFILE

SCALE: 1"=30' HORIZ.
1"=6' VERT.



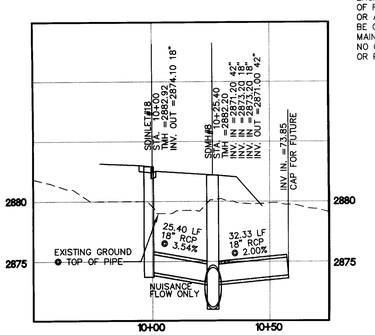
NOTES:

1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

HAMMER LANE AND ALPINE RIDGE LANE

NOT TO SCALE

A C4.02



LATERAL AT SDMH#8

SCALE: 1"=30' HORIZ.
1"=6' VERT.

NOTE:
REFER TO SIGNAGE AND STRIPING SHEETS FOR LOCATIONS OF SIGHT VISIBILITY ZONES. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY ZONE REGARDLESS OF RIGHT OF WAY WIDTH. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NORTH1 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 15 of 86

REVISIONS

REV	DESCRIPTION	DATE	BY

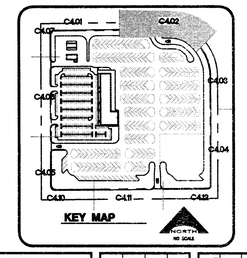
DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHTS SYSTEMS WHILE DIGGING
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
OR
1-702-229-6811
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL

PROFESSIONAL ENGINEER STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009896

3/7/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-PID SUBMITTAL
A/E PROJECT NO. 09-316

L. R. NELSON CONSULTING ENGINEERS, INC.
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
(702) 798-7979
(702) 451-2266 FAX
• STRUCTURAL
• CIVIL
• SURVEY
• PLANNING

KGA ARCHITECTURE
9075 West Diablo Drive, Suite 100
Las Vegas, Nevada 89148
702.367.6900
LAS VEGAS
1701 Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.8200
AUSTIN
www.KGAarchitecture.com

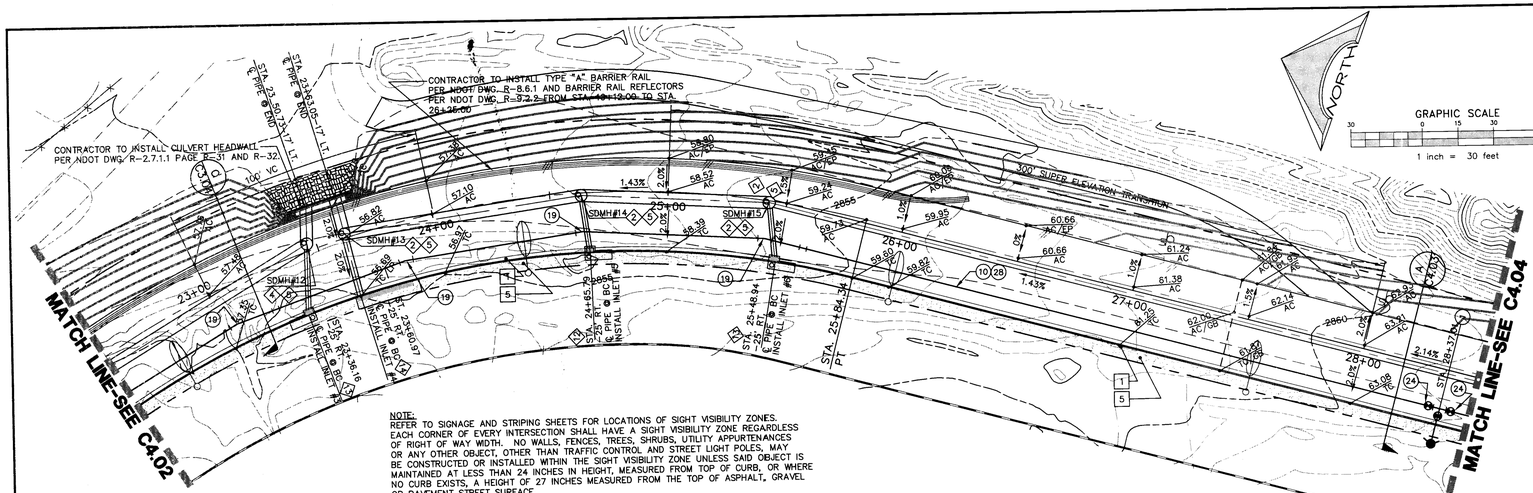
PROJECT
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-HAMMER LANE

SHEET NO.
C4.02
SHEET 31 OF 77

CLV#
HTE#



NOTE:
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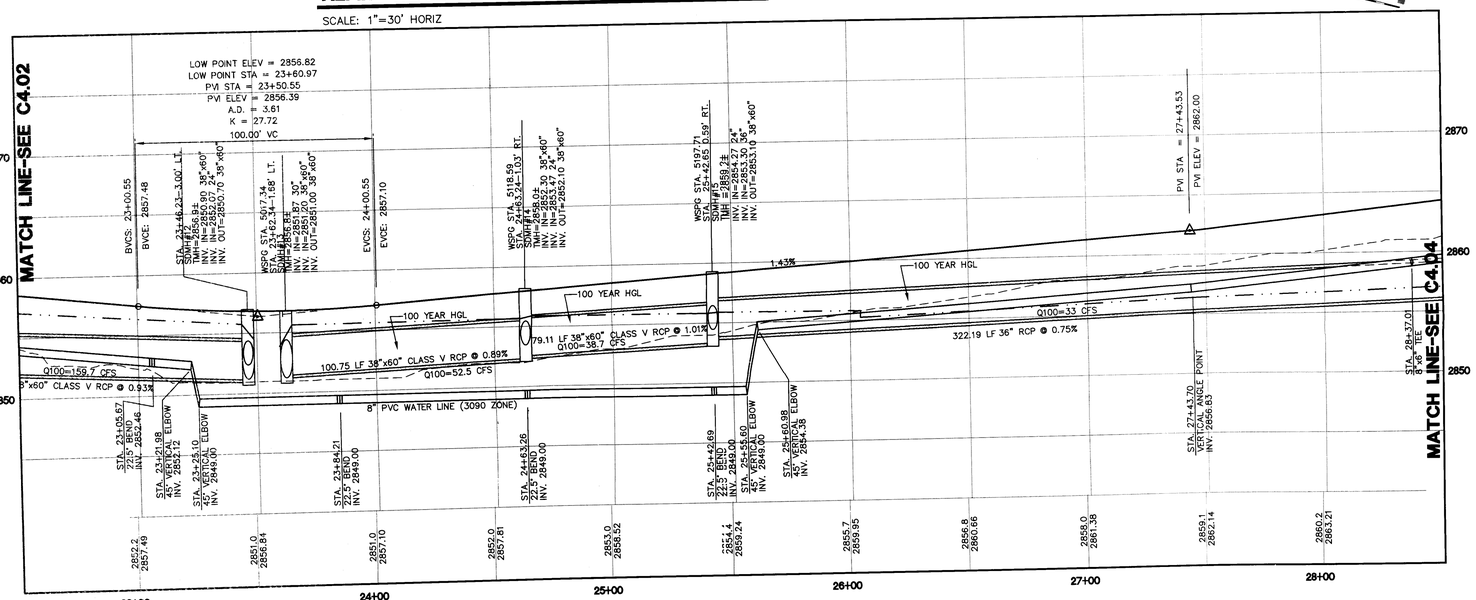
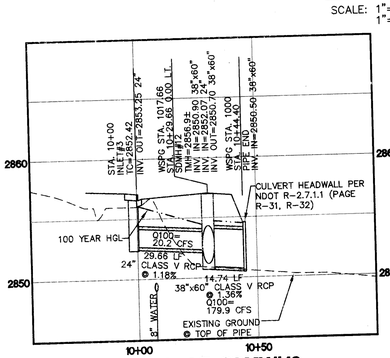
ALPINE RIDGE WAY-STA. 22+50 TO STA. 28+50

SCALE: 1"=30' HORIZ



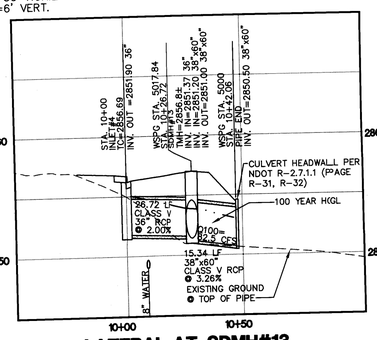
PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



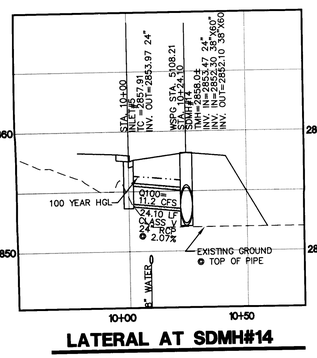
LATERAL AT SDMH#12

SCALE: 1"=30' HORIZ
1"=6' VERT.



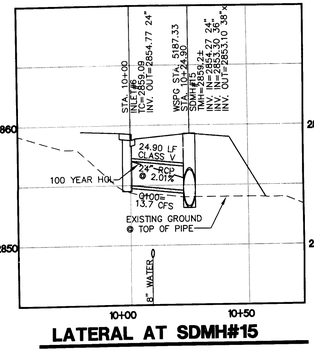
LATERAL AT SDMH#13

SCALE: 1"=30' HORIZ
1"=6' VERT.



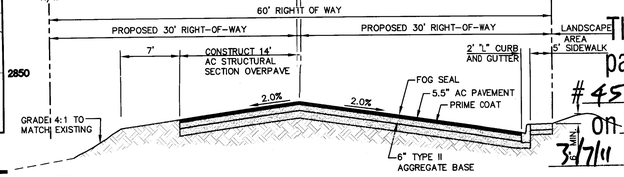
LATERAL AT SDMH#14

SCALE: 1"=30' HORIZ
1"=6' VERT.



LATERAL AT SDMH#15

SCALE: 1"=30' HORIZ
1"=6' VERT.



NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE: DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE: BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AAND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERRS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

HAMMER LANE AND ALPINE RIDGE WAY

NOT TO SCALE

A
C4.03

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO. 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01
10. INISTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INISTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE ARIOUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DIEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TIRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

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or
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AND
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Avoid overhead power line contact
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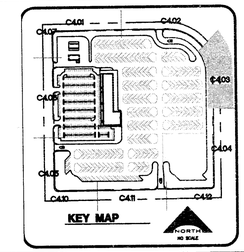
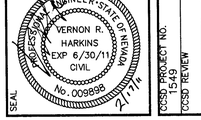
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6411
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM





CCSD PROJECT NO. 1549
CCSD REVIEW BY
APPROVED BY
DATE
DATE: DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL: FINAL SUBMITTAL
K/A PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
6765 West Russell Road, Suite 200
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(702) 798-7979
(702) 451-2296 FAX
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-MECHANICAL
-PLANNING

KGA ARCHITECTURE
9075 West Diablo Drive, Suite 150
Las Vegas, Nevada 89148
702.367.6900
LAS VEGAS
10100 Reunion Place, 8th Floor
San Antonio, Texas 78216
210.308.3378
SAN ANTONIO
10000 N. Central Expressway, Suite 400
Dallas, Texas 75231
214.373.8300
DALLAS
7600 Burnet Road, Suite 530
Austin, Texas 78757
512.441.8200
AUSTIN
www.kgarchitecture.com

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Routed on 3/7/11. Page 96 of 126

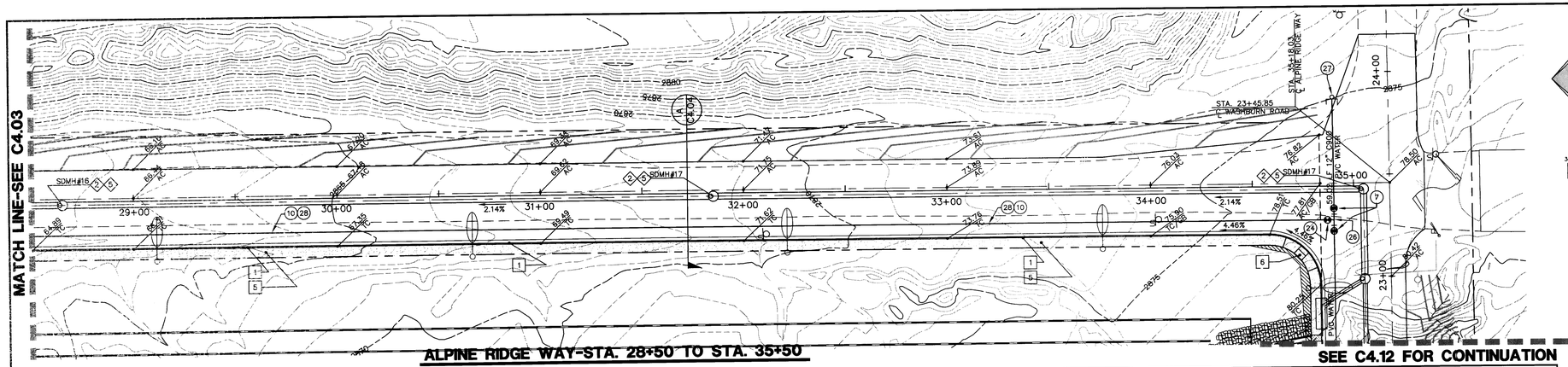
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: PLAN AND PROFILE-ALPINE RIDGE WAY

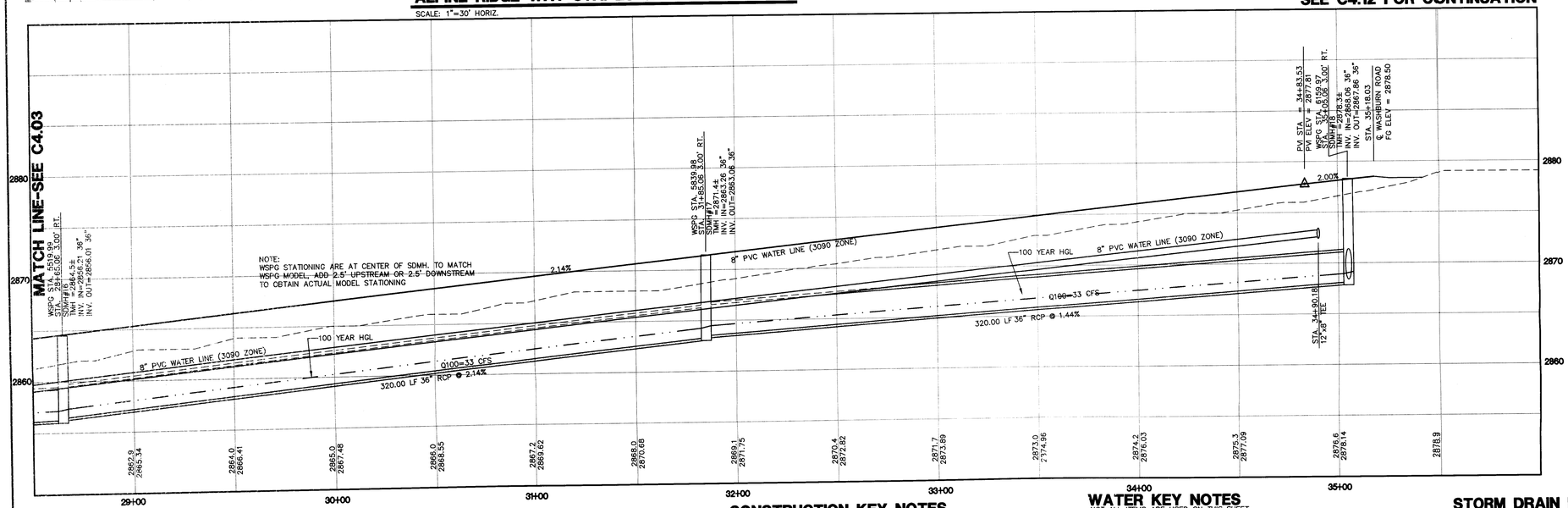
SHEET NO. C4.03
SHEET 32 OF 77

CLV#
HTE#



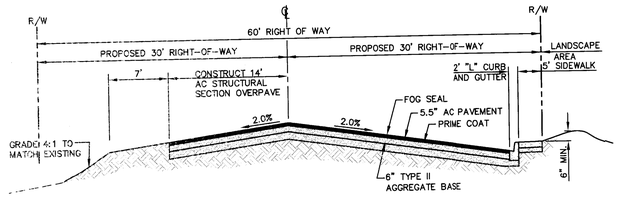
ALPINE RIDGE WAY-STA. 28+50 TO STA. 35+50

SCALE: 1"=30' HORIZ.



PROFILE

SCALE: 1"=30' HORIZ.
1"=6' VERT.



NOTES:

1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 4011 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

HAMMER LANE AND ALPINE RIDGE LANE

NOT TO SCALE

A C4.04

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

NOTE:
REFER TO SIGNAGE AND STRIPING SHEETS FOR LOCATIONS OF SIGHT VISIBILITY ZONES. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY ZONE REGARDLESS OF RIGHT OF WAY WIDTH. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

This grading plan is part of drainage study # 4511 which was received on 2/17/11 and Routed on 3/7/11. Page 17 of 26

REVISIONS

REV	DESCRIPTION	DATE	BY

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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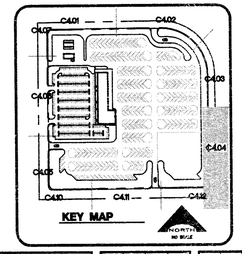
CLARK COUNTY TRAFFIC SYSTEMS
OR
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL
REGISTERED PROFESSIONAL ENGINEER
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

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www.KGArchitecture.com
LAS VEGAS AUSTIN

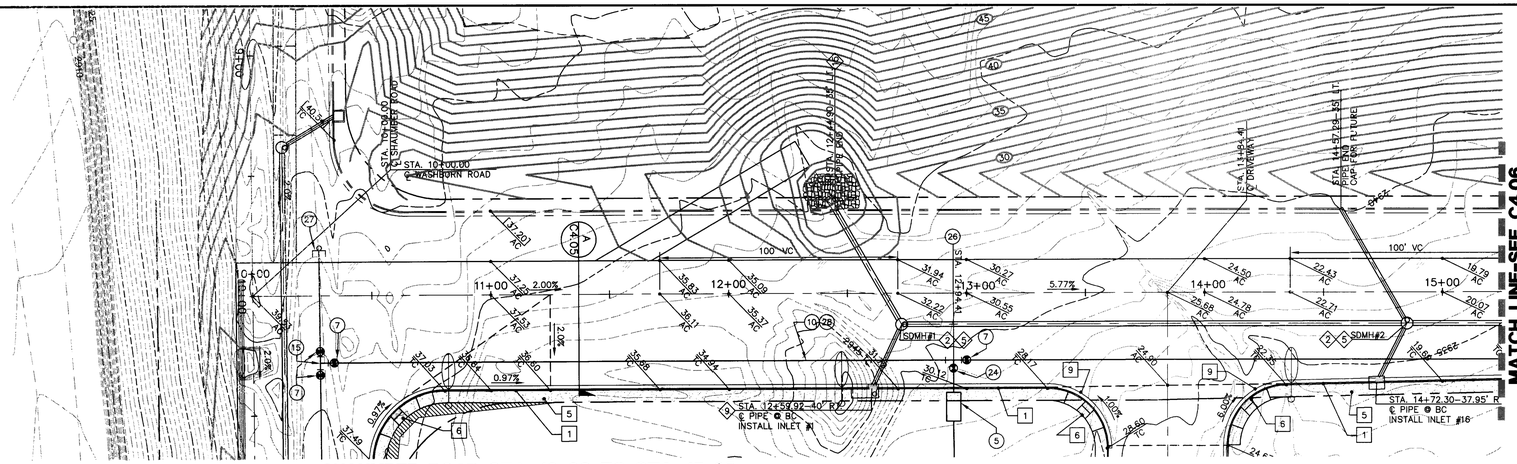
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: PLAN AND PROFILE-ALPINE RIDGE WAY

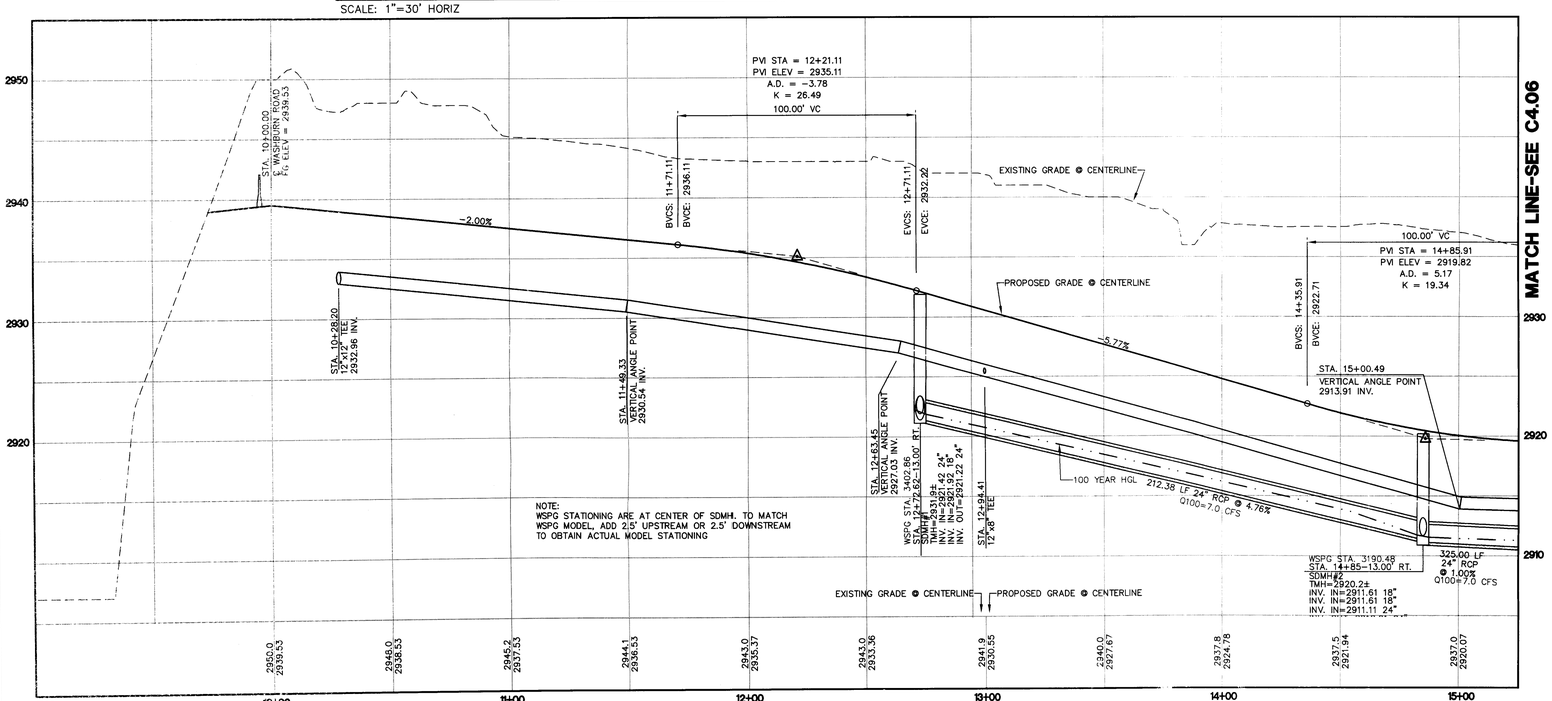
SHEET NO. C4.04
SHEET 33 OF 77

CLV#
HTE#



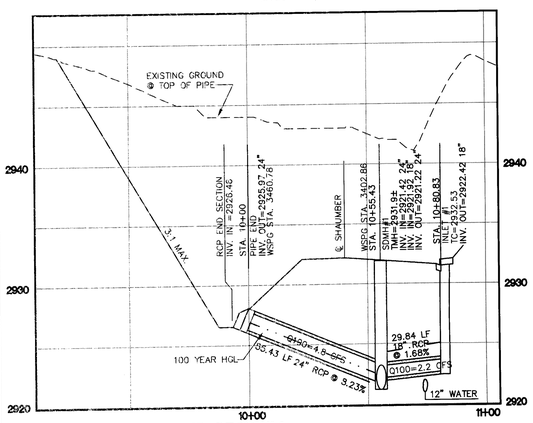
SHAUMBER ROAD-STA. 10+00 TO STA. 15+25

SCALE: 1"=30' HORIZ



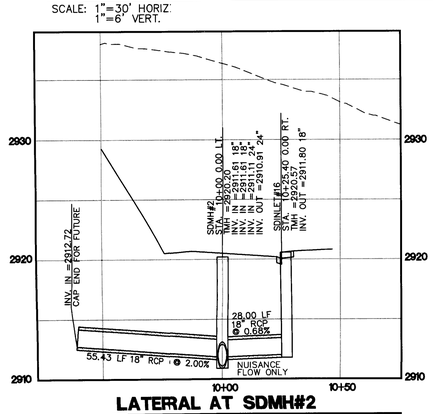
PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



LATERAL AT SDMH#1

SCALE: 1"=30' HORIZ
1"=6' VERT.



LATERAL AT SDMH#2

SCALE: 1""=30' HORIZ
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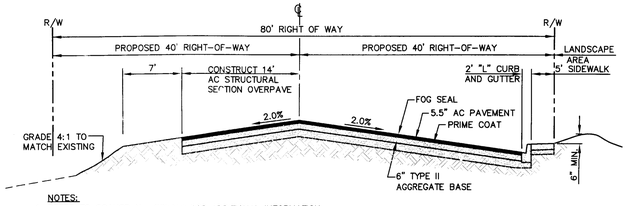

NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

SHAUMBER ROAD

NOT TO SCALE

A
C4.05

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BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36, TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A+ RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF AALPINE RIDGE AND HAMMER LANE
ELLEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

GRAPHIC SCALE
30 0 15 30 60
1 inch = 30 feet

NORTH

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN. UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIP BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

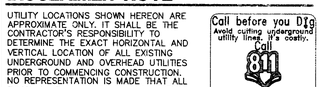
ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

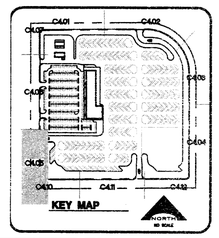
This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Revised on 3/7/11 Page 18 Of 26

REVISIONS			
REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.





SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP. 6/30/11
CIVIL
No. 009898

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DRAWN BY
CHECKED BY
SUBMITTAL
K/C PROJECT NO. 09-316

DATE DECEMBER 21, 2010

L. R. NELSON CONSULTING ENGINEERS, INC.
6795 West Russell Road, Suite 200
Las Vegas, Nevada 89118
• STRUCTURAL
• CIVIL
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(702) 798-7978
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9075 West Diablo Drive, Third Floor, Suite 770
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AUSTIN
Las Vegas, Nevada 89148 (702) 441.8200
www.KGAarchitecture.com

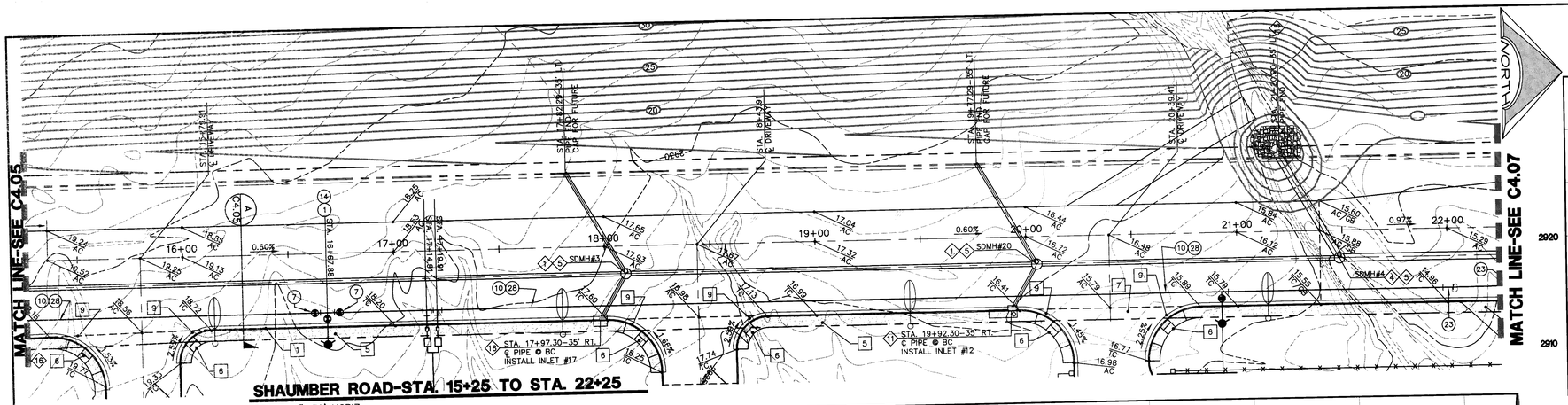
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-SHAUMBER ROAD

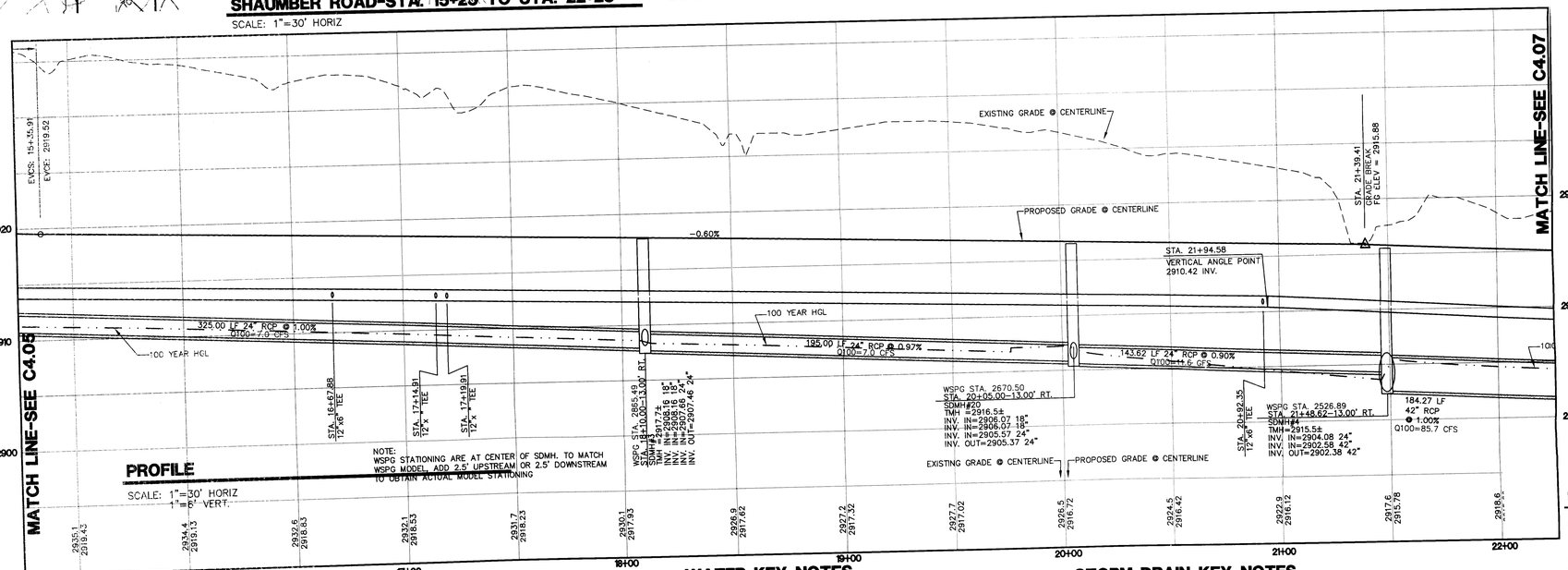
SHEET NO.
C4.05
SHEET 34 OF 77

CLV#
HTE#



SHAUMBER ROAD-STA. 15+25 TO STA. 22+25

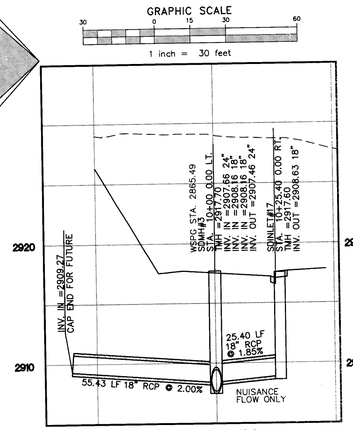
SCALE: 1"=30' HORIZ



NOTE:
WSPG STATIONING ARE AT CENTER OF SDMH. TO MATCH WSPG MODEL, ADD 2.5' UPSTREAM OR 2.5' DOWNSTREAM TO OBTAIN ACTUAL MODEL STATIONING

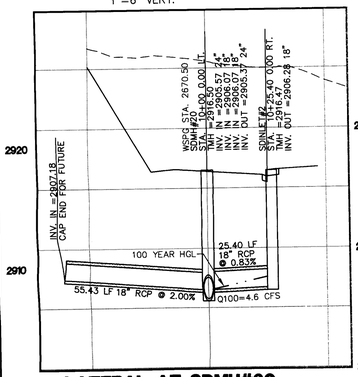
PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



LATERAL AT SDMH#3

SCALE: 1"=30' HORIZ
1"=6' VERT.



LATERAL AT SDMH#20

SCALE: 1"=30' HORIZ
1"=6' VERT.

BASIS OF BEARING

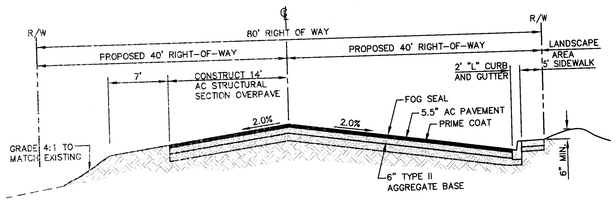
NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01.
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.



NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC

SHAUMBER ROAD
NOT TO SCALE

A C4.06

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES, OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE. REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
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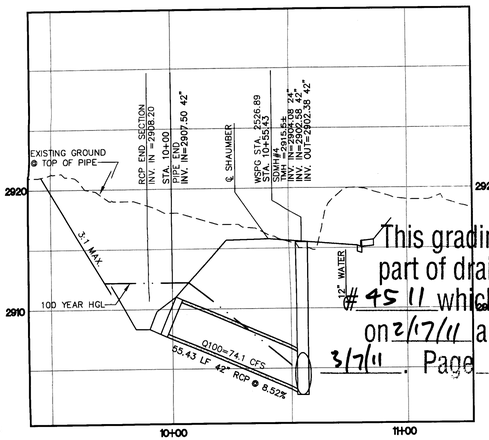
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

NOTE:
REFER TO SIGNAGE AND STRIPING SHEETS FOR LOCATIONS OF SIGHT VISIBILITY ZONES. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY ZONE REGARDLESS OF RIGHT OF WAY WIDTH. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.



LATTERAL AT SDMH#4

SCALE:: 1"=30' HORIZ
1"=6' VERT.

DISCLAIMER NOTE

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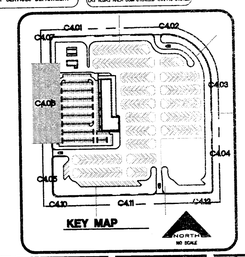
Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

ANDE HITING UNDERGROUND TRAFFIC SIGNAL SYSTEMS ARE STREET LIGHT SYSTEM CONDUITS ITS COUNTY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



REVISIONS

REV	DESCRIPTION	DATE	BY

L. R. NELSON CONSULTING ENGINEERS, INC.
- STRUCTURAL
- CIVIL
- SURVEY
- PLANNING
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
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LAS VEGAS
9075 West Diablo Drive, Suite 150
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PROFESSIONAL ENGINEER, STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
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SEAL

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

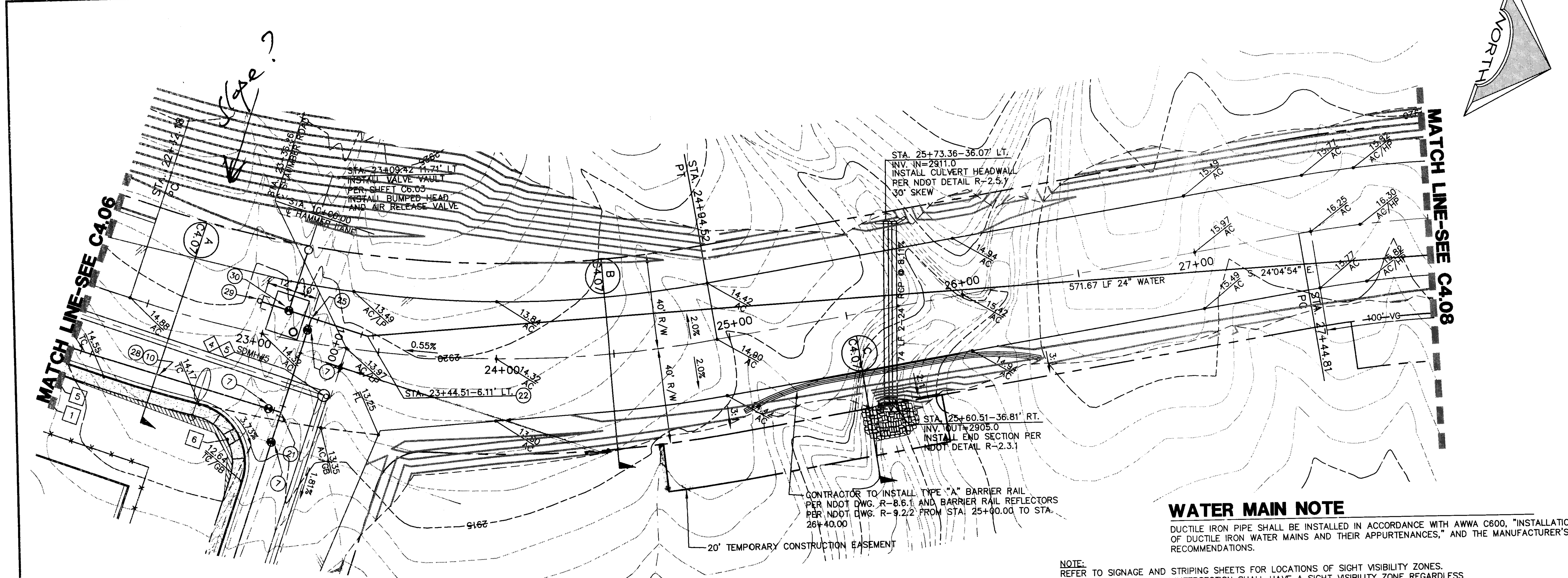
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-SHAUMBER ROAD

SHEET NO.
C4.06
SHEET 35 OF 77

CLV#
HTE#

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 19 of 26



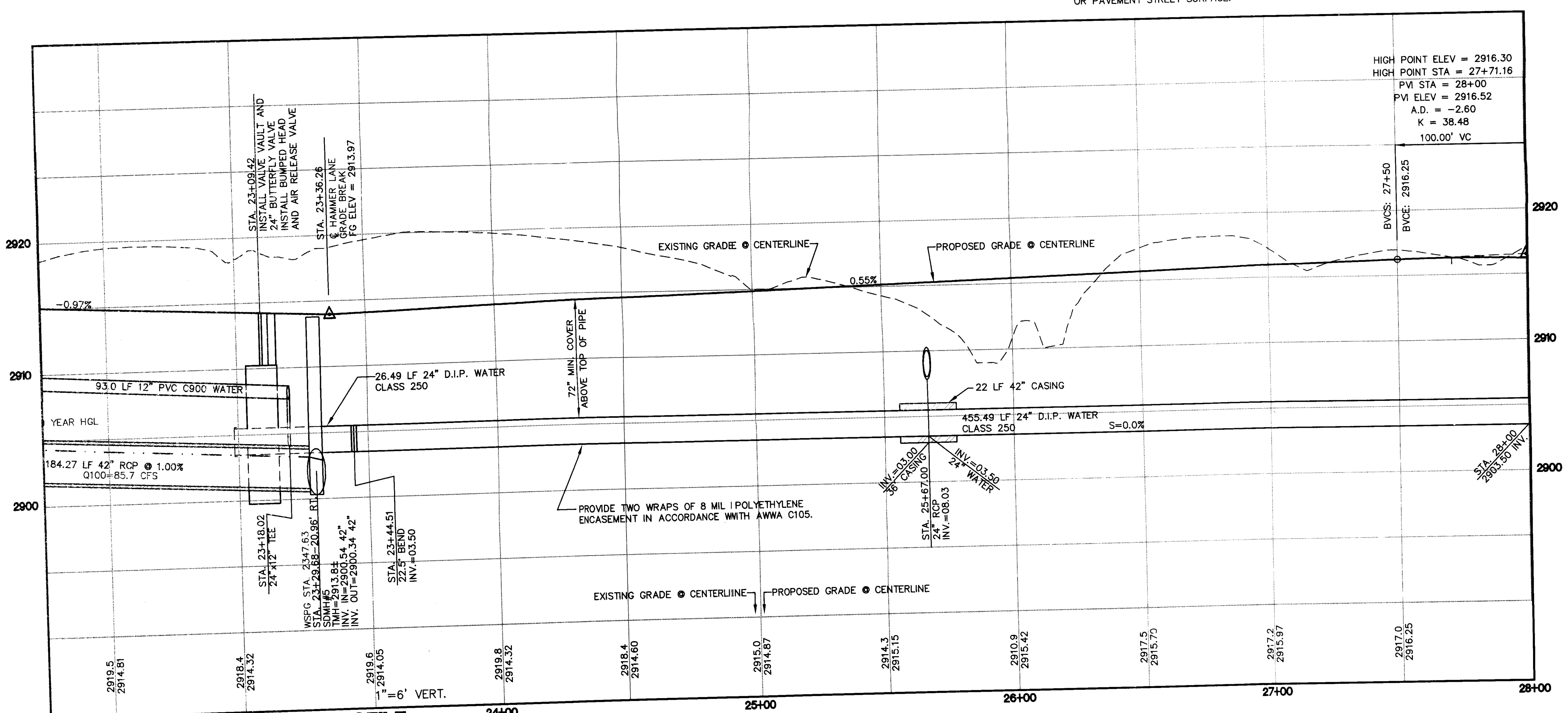
SHAUMBER ROAD-STA. 22+25 TO STA. 28+00

SCALE: 1"=30' HORIZ

WATER MAIN NOTE

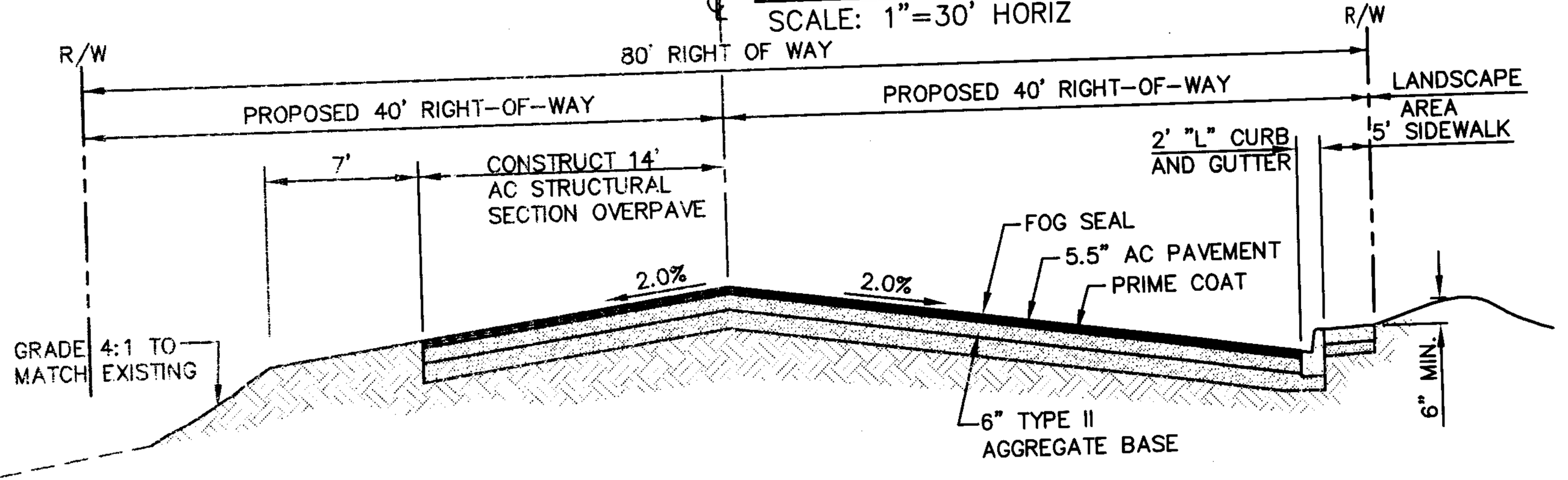
DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600, "INSTALLATION OF DUCTILE IRON WATER MAINS AND THEIR APPURTENANCES," AND THE MANUFACTURER'S RECOMMENDATIONS.

NOTE:
REFER TO SIGNAGE AND STRIPING SHEETS FOR LOCATIONS OF SIGHT VISIBILITY ZONES. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY ZONE REGARDLESS OF RIGHT OF WAY WIDTH. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.



PROFILE

SCALE: 1"=30' HORIZ



NOTES:
1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
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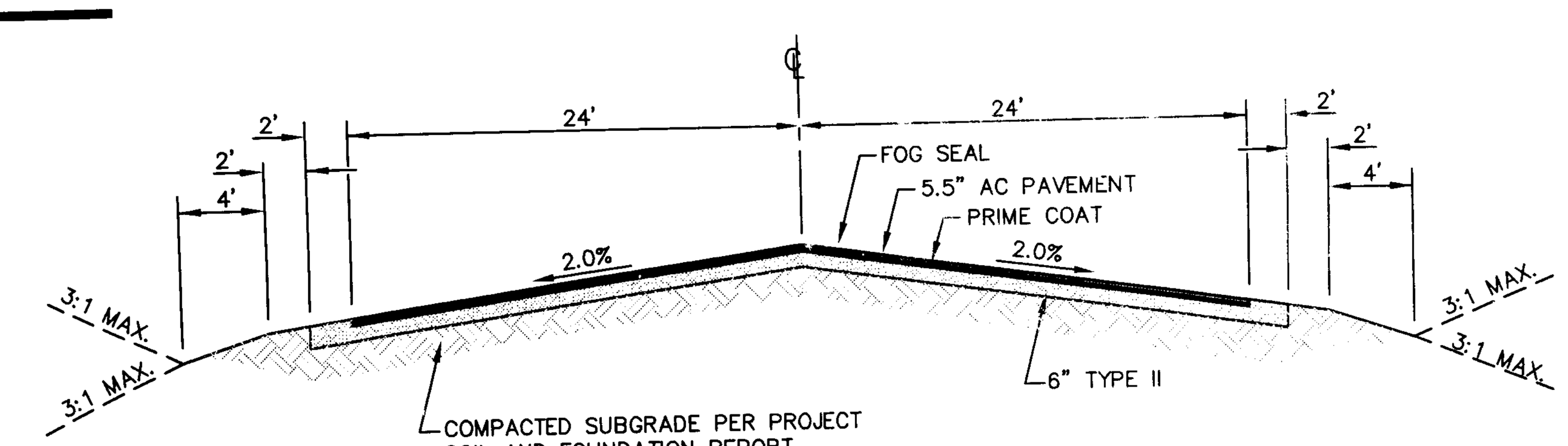
SHAUMBER ROAD

NOT TO SCALE

A / C4.07

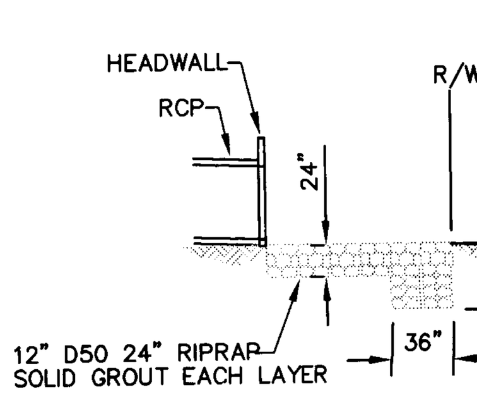


REFER TO CCAUSD No. 209 FOR ADDITIONAL INFORMATION.

SHAUMBER ROAD

NOT TO SCALE

B / C4.07



SECTION

NOT TO SCALE

C / C4.07

GRAPHIC SCALE

30 0 15 30 60

1 inch = 30 feet

CONSTRUCTION KEY NOTES

1	CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3	CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4	CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5	CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6	CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7	CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8	CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9	CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6
10	INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11	INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1	INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2	SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3	PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELO WATER LINES.
4	INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5	INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6	INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7	INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8	REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9	INSTALL A RPPA PER UDACS PLATE No. 8.
10	CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIF BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATIO
11	REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12	INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13	INSTALL A 2x4 MANIFOLD.
14	INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15	INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16	INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 ANC
17	INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18	INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19	INSTALL 8"x11.25° BEND.
20	INSTALL 12"x8" REDUCER.
21	INSTALL 12"x12" TEE.
22	INSTALL 24"x22.5° BEND.
23	DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24	INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25	INSTALL 24"x12" TEE.
26	INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27	INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28	TRENCH SECTION PER UDACS PLATE No. 17.
29	INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30	INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1	INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2	INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3	INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4	INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5	INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6	INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7	INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8	INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9	INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10	INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11	INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12	INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13	INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14	INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15	INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1
16	INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 20 of 26

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (MW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

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Call before you Dig
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OR 1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-7544

Avoid overhead power line contact
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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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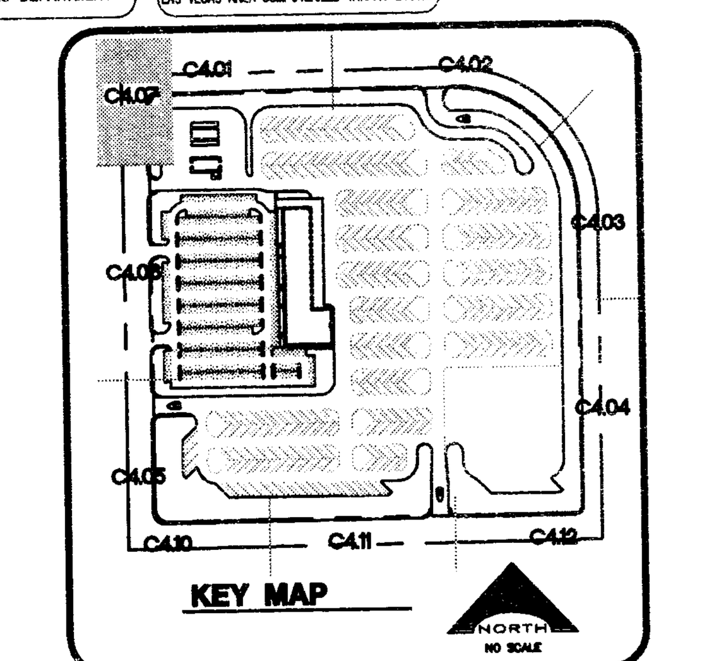
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



KEY MAP

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/17/11

CCSD PROJECT NO.	1549
CCSD REVIEW	
APPROVED BY	
DATE	
DATE	DECEMBER 21, 2010
DRAWN BY	
CHECKED BY	
SUBMITTAL	PRE-BID SUBMITTAL
A/E PROJECT NO.	08-816

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CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE
LAS VEGAS, NEVADA 89121

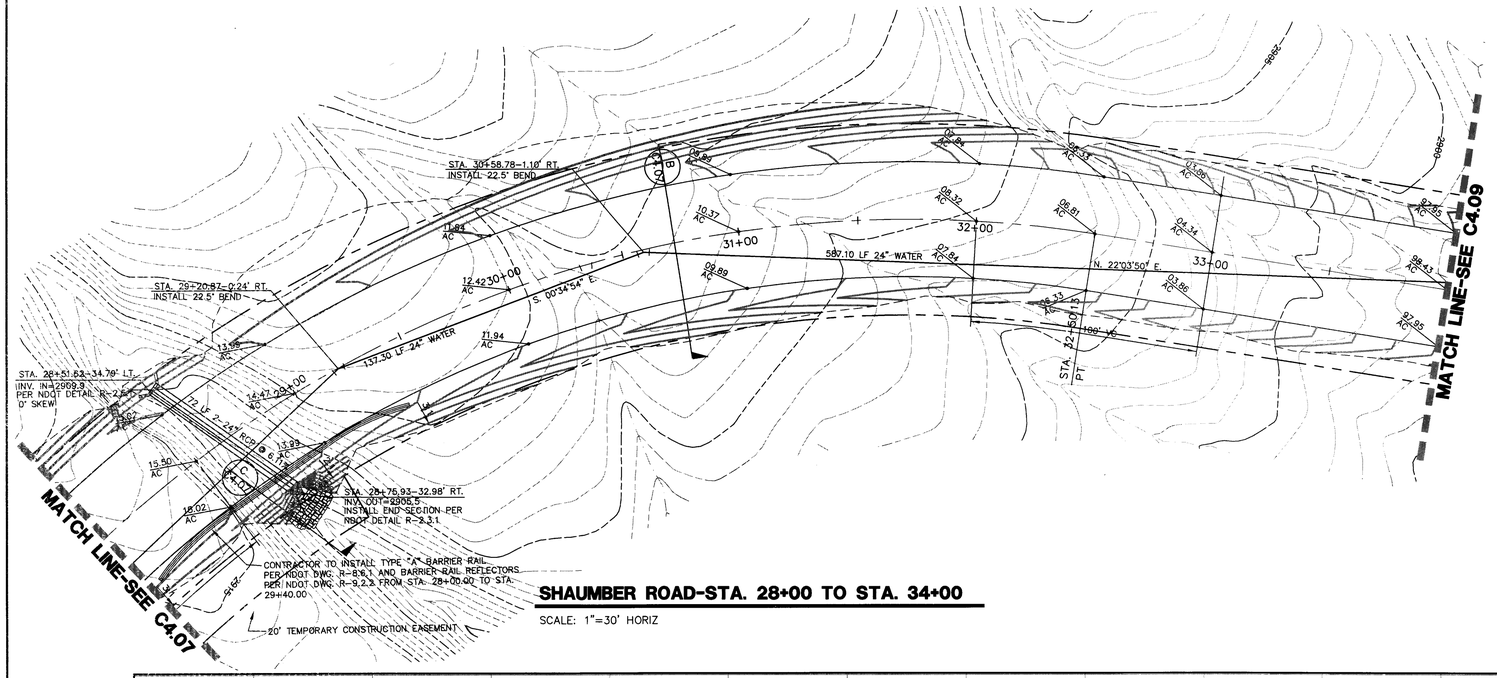
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-SHAUMBER ROAD

SHEET NO.
C4.07
SHEET 36 OF 77

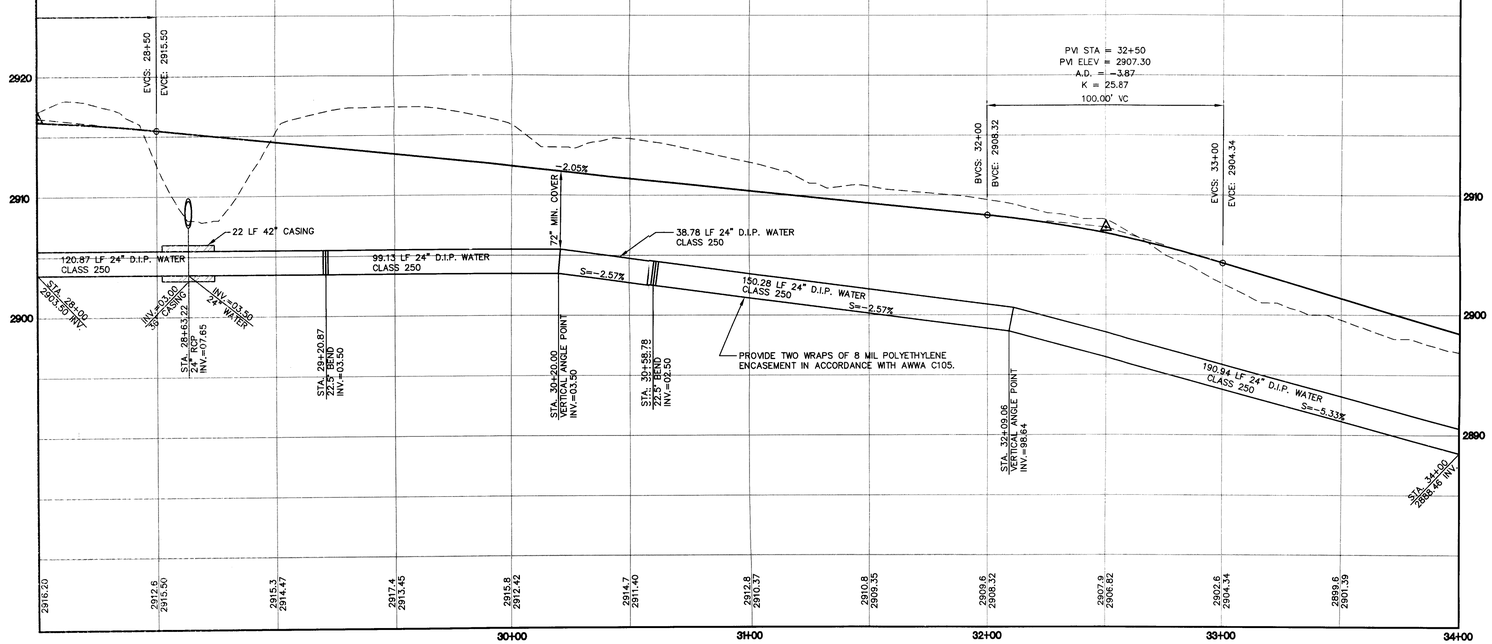
CLV#

HTE#



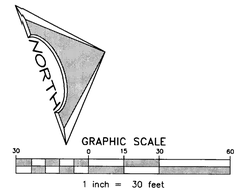
SHAUMBER ROAD-STA. 28+00 TO STA. 34+00

SCALE: 1"=30' HORIZ



PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



REVISIONS

REV	DESCRIPTION	DATE	BY

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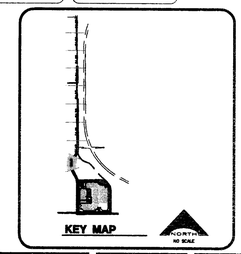

SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/7/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE

DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY

SUBMITTAL
PROJECT NO. 08-816

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PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-SHAUMBER ROAD

SHEET NO.
C4.08
SHEET 37 OF 77

CLV#
HTE#

This grading plan is a part of drainage study # 4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 21 of 26

WATER MAIN NOTE

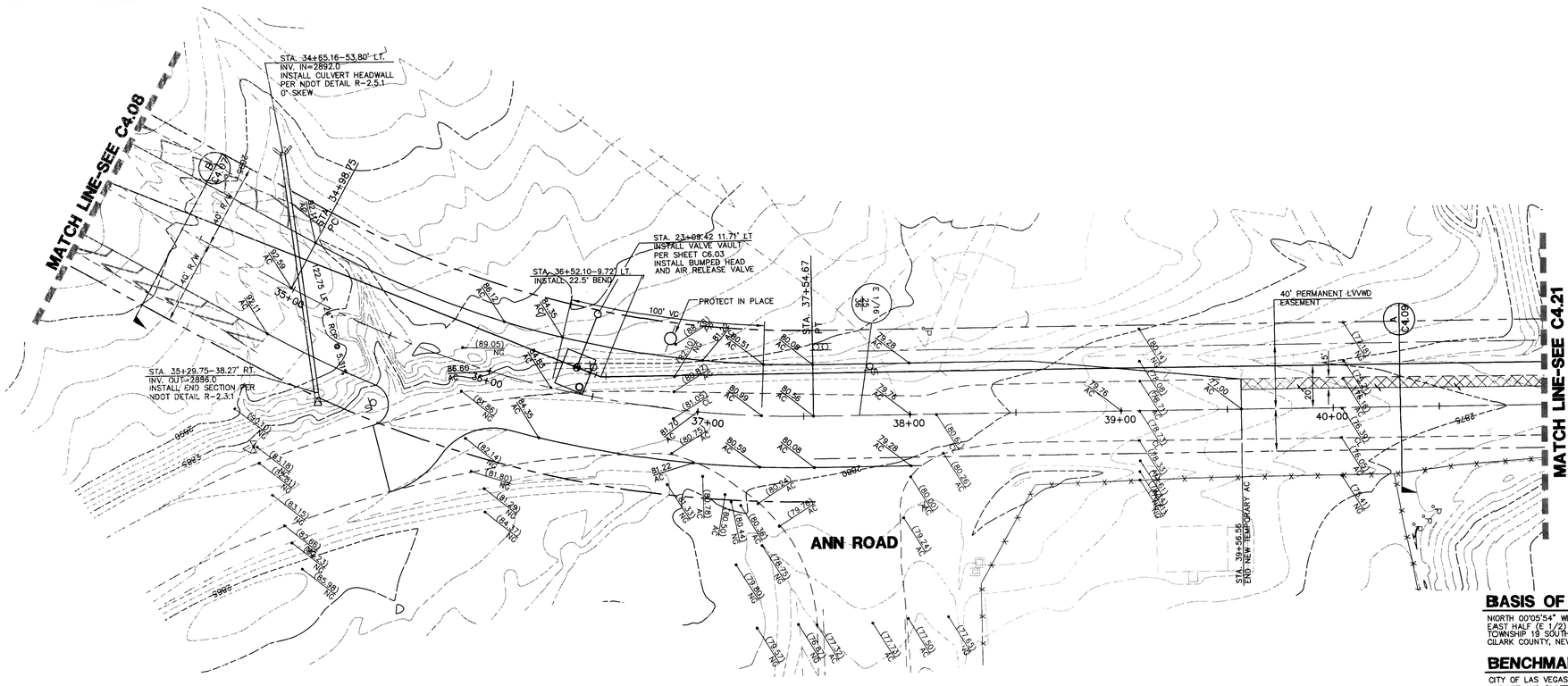
DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600, "INSTALLATION OF DUCTILE IRON WATER MAINS AND THEIR APPURTENANCES," AND THE MANUFACTURER'S RECOMMENDATIONS.

BASIS OF BEARING

NORTH 010°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

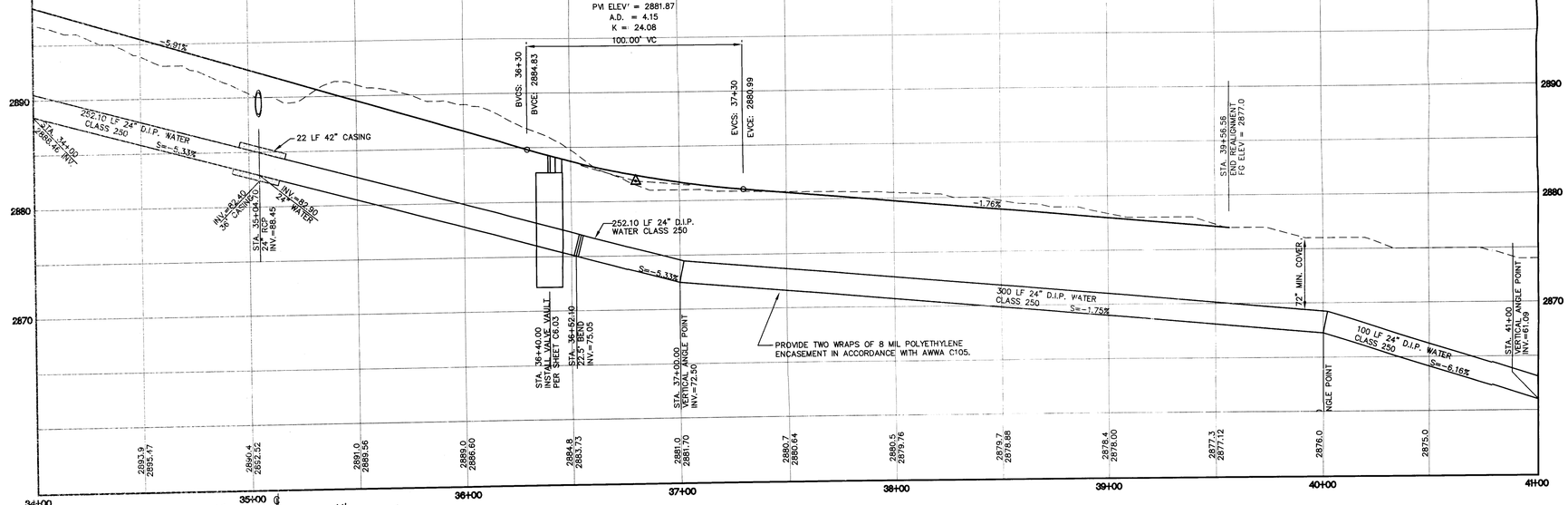
BENCHMARK

CITY OF LAS VEGAS BENCHMARK SLV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (899.059 METERS) NAVD 1988 DATUM



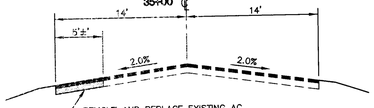
SHAUMBER ROAD-STA. 34+00 TO STA. 41+00

SCALE: 1"=30' HORIZ



PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



SHAUMBER ROAD

NOT TO SCALE

A
C4.09

GRAPHIC SCALE
30 0 15 30 60
1 inch = 30 feet

NORTH

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

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DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600, "INSTALLATION OF DUCTILE IRON WATER MAINS AND THEIR APPURTENANCES," AND THE MANUFACTURER'S RECOMMENDATIONS.

REVISIONS

REV	DESCRIPTION	DATE	BY

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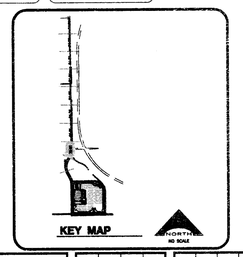

SEAL
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CCSD PROJECT NO. 1549
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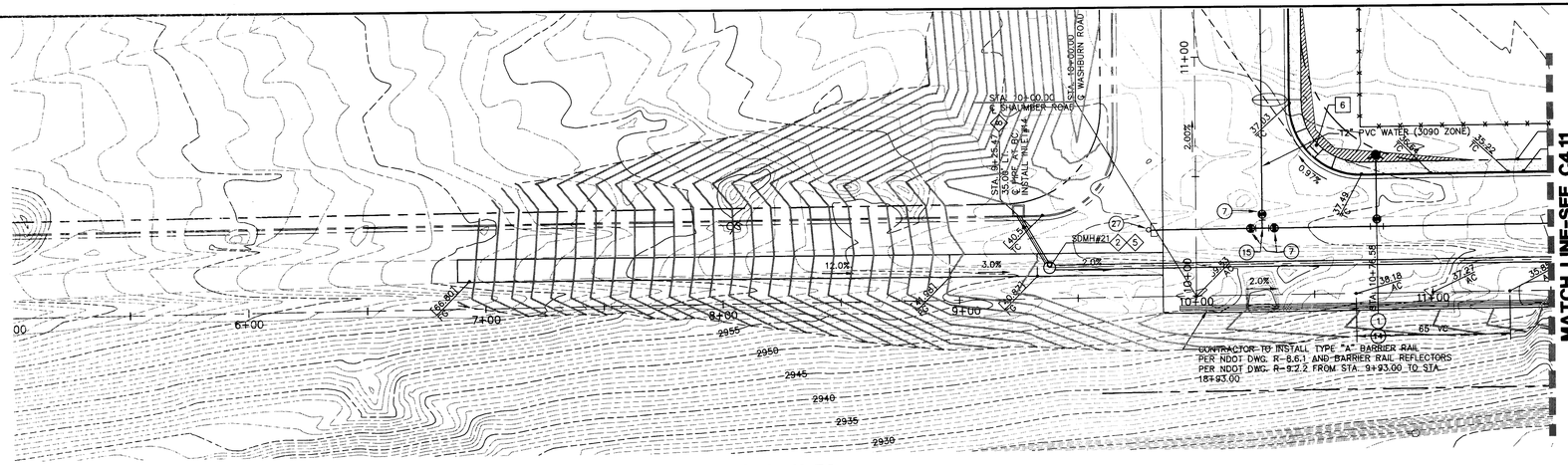
PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-SHAUMBER ROAD

SHEET NO.
C4.09
SHEET 38 OF 77

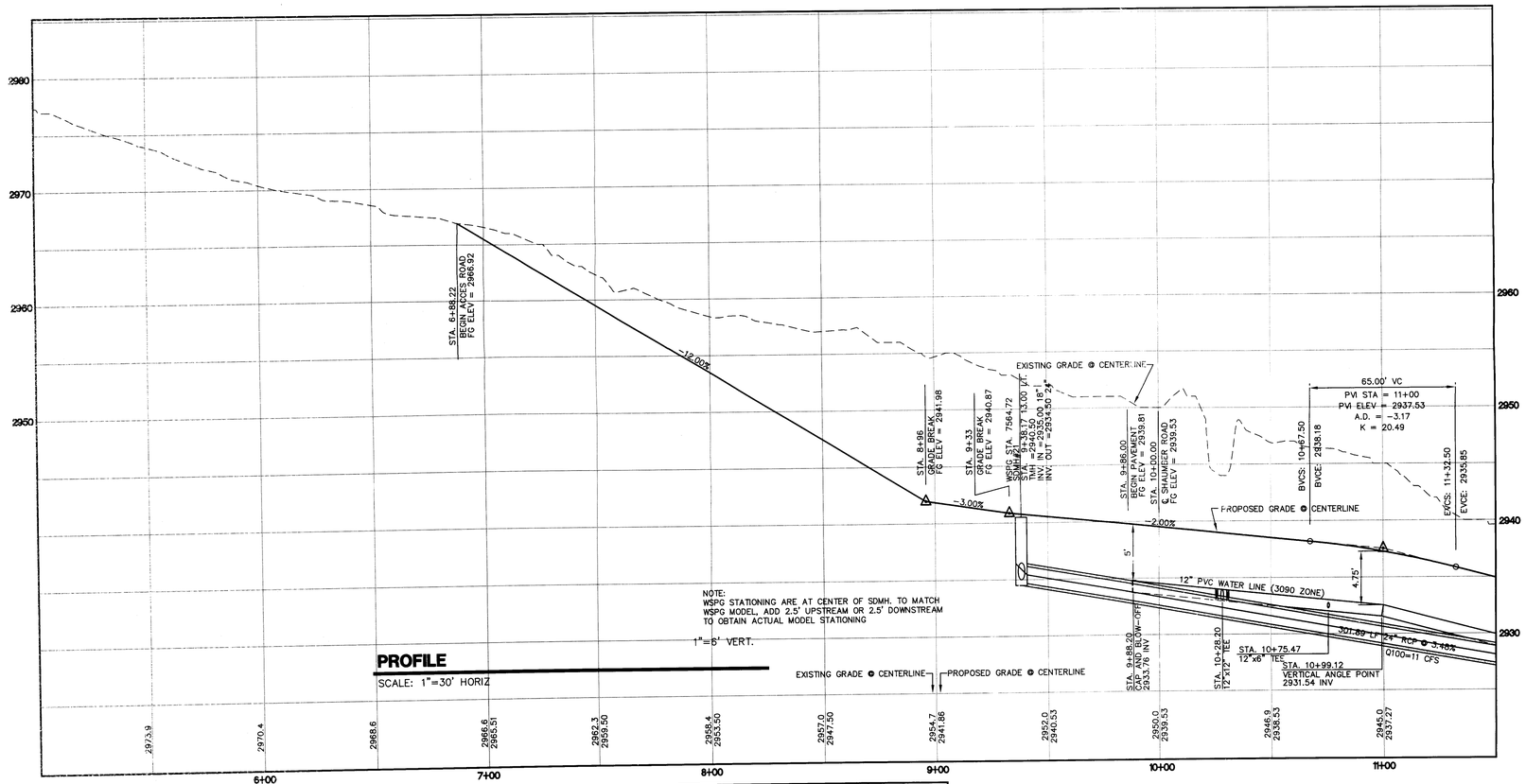
CLV#
HTE#

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11 Page 22 of 26



WASHBURN ROAD-STA. 6+88.22 TO STA. 11+50

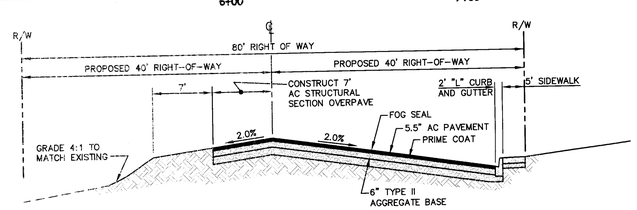
SCALE: 1"=30' HORIZ



PROFILE

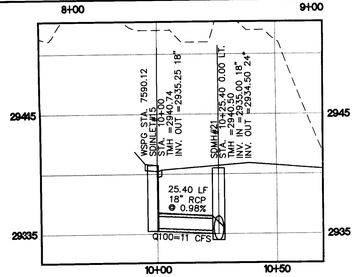
SCALE: 1"=30' HORIZ

EXISTING GRADE @ CENTERLINE — PROPOSED GRADE @ CENTERLINE



NOTES:

1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.



LATERAL AT SDMH#21

SCALE: 1"=30' HORIZ
1"=6' VERT.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

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A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NORTH

GRAPHIC SCALE
30 0 15 30 60
1 inch = 30 feet

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO. 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
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10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

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2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
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5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 35
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

REVISIONS			
REV	DESCRIPTION	DATE	BY

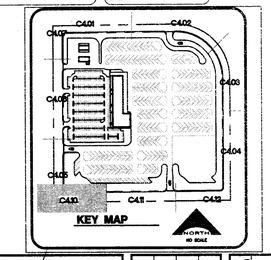
DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND ELECTRICAL SYSTEM AND STREET LIGHT SYSTEM CONDUITS
IT'S COSTLY !!!
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
OR
1-702-228-4811
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL — JAMES A. GIBSON — REGISTERED ENGINEER — STATE OF NEVADA — VERNON R. HARKINS EXP 6/30/11 CIVIL NO. 009896

CCSD PROJECT NO. 1.5454
CCSD REVIEW
APPROVED BY
DATE

DATE: DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL: PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
-STRUCTURAL
-CIVIL
-SURVEY
-PLANNING
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
(702) 798-7978
(702) 451-2296 FAX

KGA ARCHITECTURE
9075 West Diablo Drive, Suite 250
Las Vegas, Nevada 89148
702.367.6900
Directors Boulevard, Suite 770
Austin, Texas 78744
512.441.6200
AUSTIN
LAS VEGAS

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and rejected on 3/7/11. Page 33 of 26.

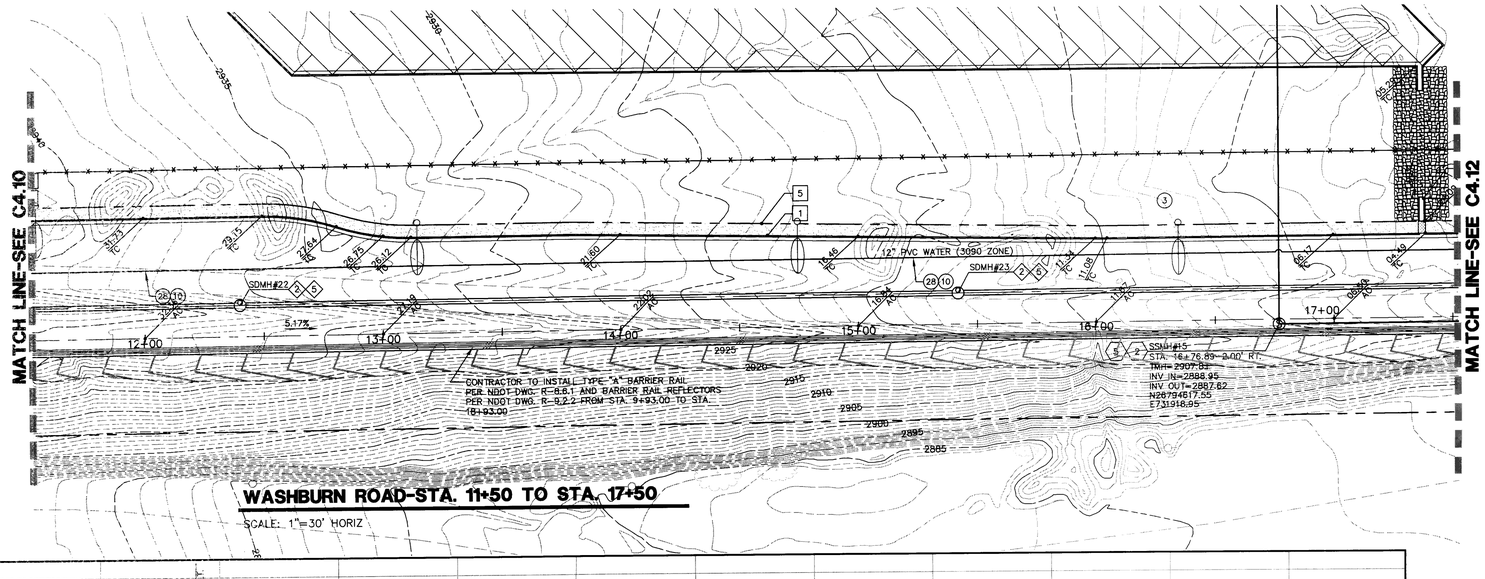
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: PLAN AND PROFILE-WASHBURN ROAD

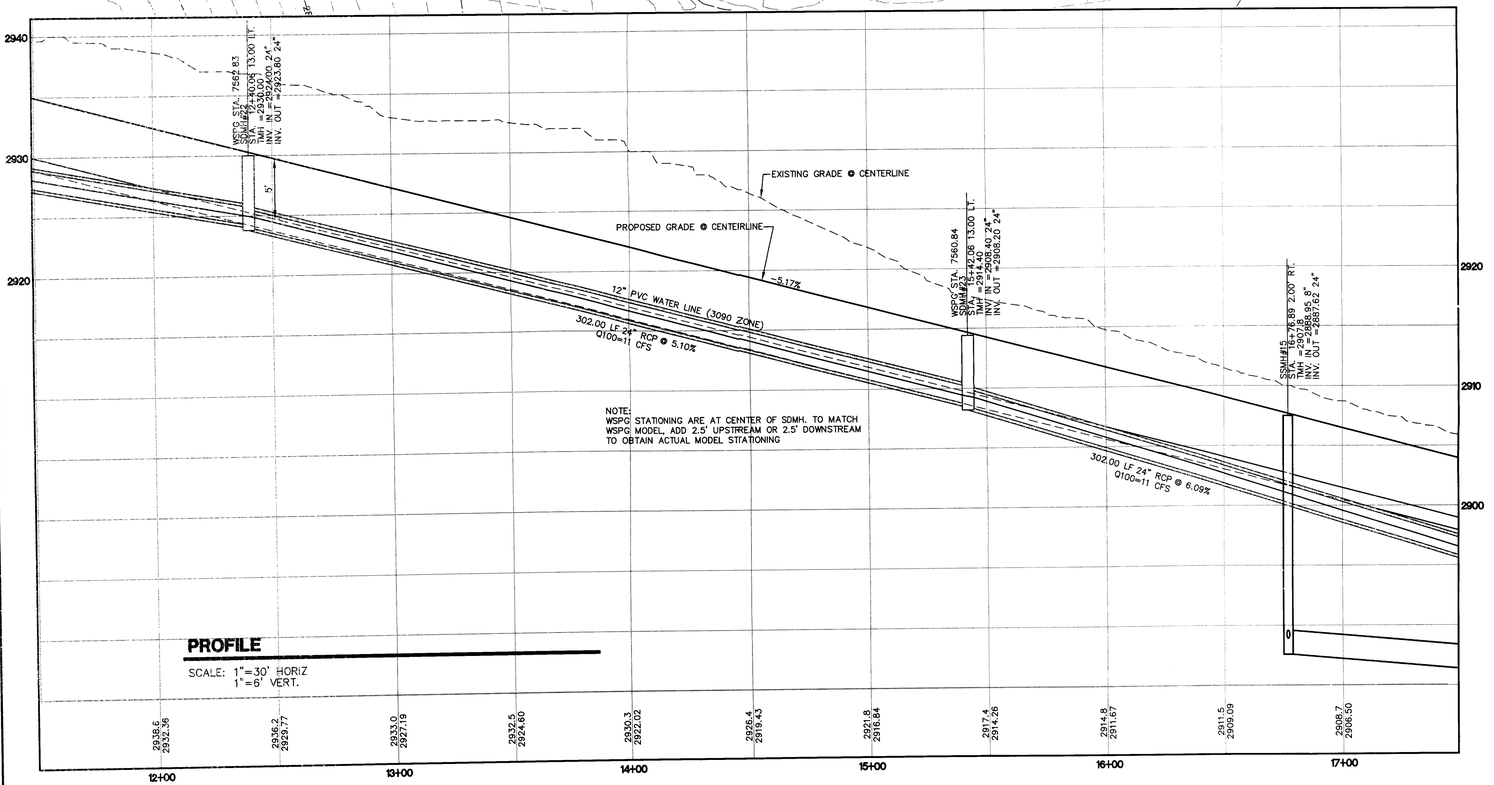
SHEET NO. C4.10
SHEET 39 OF 77

CLV#
HTE#



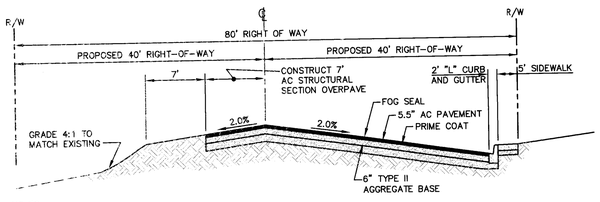
WASHBURN ROAD-STA. 11+50 TO STA. 17+50

SCALE: 1"=30' HORIZ



PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



NOTES:

1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
2. THE OFFSITE SECTIONS SHOWN ON THE PLANS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. THE NEW SECTION MUST BE BASED ON THE ACTUAL R-VALUE RESULT THAT IS TO BE PERFORMED SUBSEQUENT TO GRADING OPERATIONS. THE NEW SECTION WILL BE REDESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER AND SUBMITTED TO CLV FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL INSURE THAT ADEQUATE TIME IS PROVIDED SO THAT THERE IS NO DELAY IN THE CONSTRUCTION SCHEDULE AND THAT THERE IS NO UNNECESSARY GRADING/REGRADING OF ROADWAYS.
3. INTERSECTION AND ENTRANCE CONCRETE VALLEY GUTTERS WERE REMOVED FROM THIS PLAN SET AT THE REQUEST OF THE CITY OF LAS VEGAS TRAFFIC DEPARTMENT.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

GRAPHIC SCALE
30 0 15 30 60
1 inch = 30 feet

NORTH

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE NO. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALLL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALLL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALLL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALLL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALLL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALLL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALLL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALLL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALLL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALLL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALLL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATTER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL SITORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESSS OTHERWISE NOTED.

SANITARY SEWER KEY NOTES

1. CONSTTRUCT A STANDARD 48" PRECAST MANHOLE PER DCSWCS DRAWING No. SD-1AA AND SD-1B.
2. INSTAALL A CONCRETE COLLAR PER DCSWCS DRAWING No. SD-1AA.
3. TRENCCH SECTION PER DCSWCS DRAWING No. SD-18.
4. INSTALLL NEW SANITARY SEWER MAIN UNDER EXISTING WATER LATERAL PER DOCSWCS DRAWING No. SD-21.
5. INSTALLL A STANDARD 72" PRECAST MANHOLE PER DCSWCS DRAWING No. SD-1AA AND SD-1B.
6. INSTAALL A LOCKING MANHOLE COVER PER DCSWCS DRAWING No.
7. INSTAALL 30 LF OF WATER QUALITY C900 PVC.
8. INSTAALL 24" SS ULTRA CORR/ULTRA RIB PIPE USING A CLASS 1B (ASTM BEDDIMNG CLASSIFICATION) BEDDING. PIPE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS FOR DEEP INSTAALLATION.
9. INSTAALL A SPECIAL MANHOLE PER DETAIL ON SHEET C . H20 RATED.

REVISIONS

REV	DESCRIPTION	DATE	BY

DISCLAIMER NOTE

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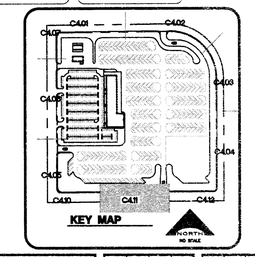
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
OR
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



KEY MAP

SEAL
PROFESSIONAL ENGINEER-STATE OF NEVADA
VERNON R. HARKINS
EXP 6/30/11
CIVIL
No. 009898
2/11/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL FINAL GRADING AND SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
• STRUCTURAL
• CIVIL
• SURVEY
• PLANNING
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
(702) 798-7378
(702) 451-2296 FAX

KGA ARCHITECTURE
7000 N. MoPac Expressway, Suite 200
Austin, Texas 78731
512.441.8200
AUSTIN

9075 West Diablo Drive, Suite 150
Las Vegas, Nevada 89148
702.367.6900
LAS VEGAS

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Accepted on 3/7/11. Page 29 of 86

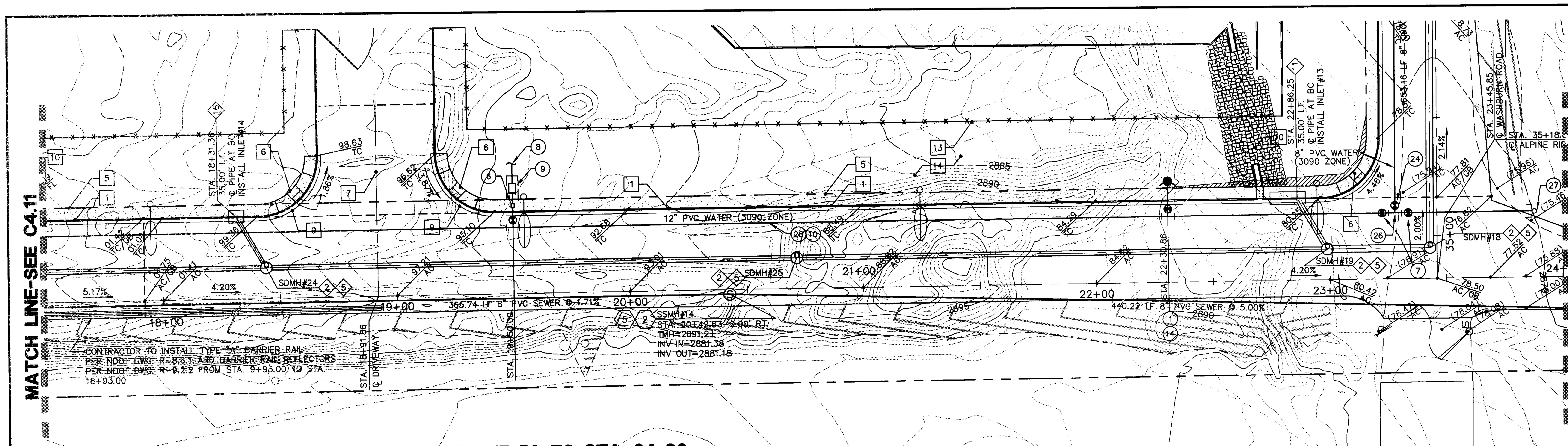
CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT
CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE
PLAN AND PROFILE-WASHBURN ROAD

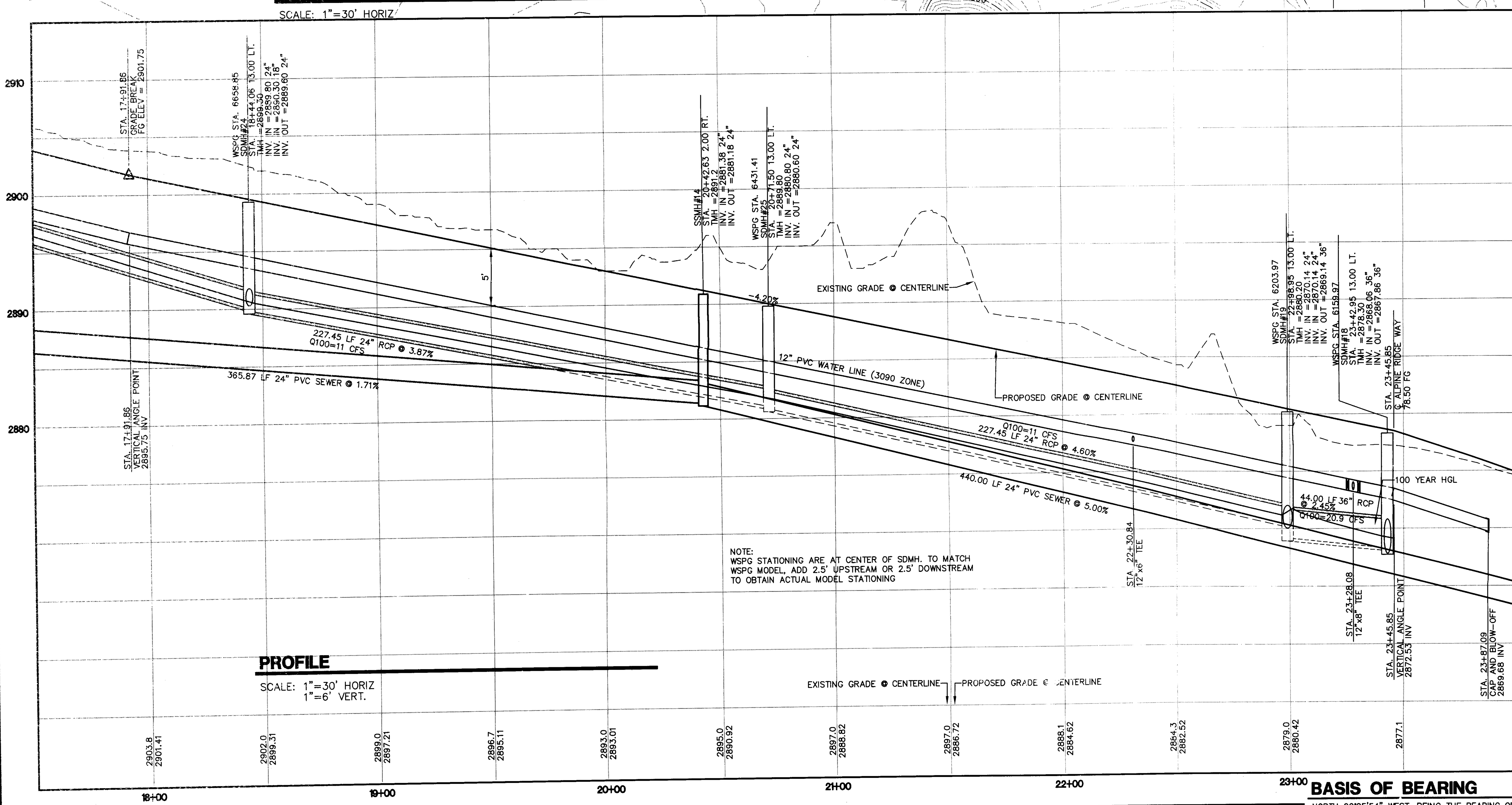
SHEET NO.
C4.11
SHEET 40 OF 77

CLV#
HTE#



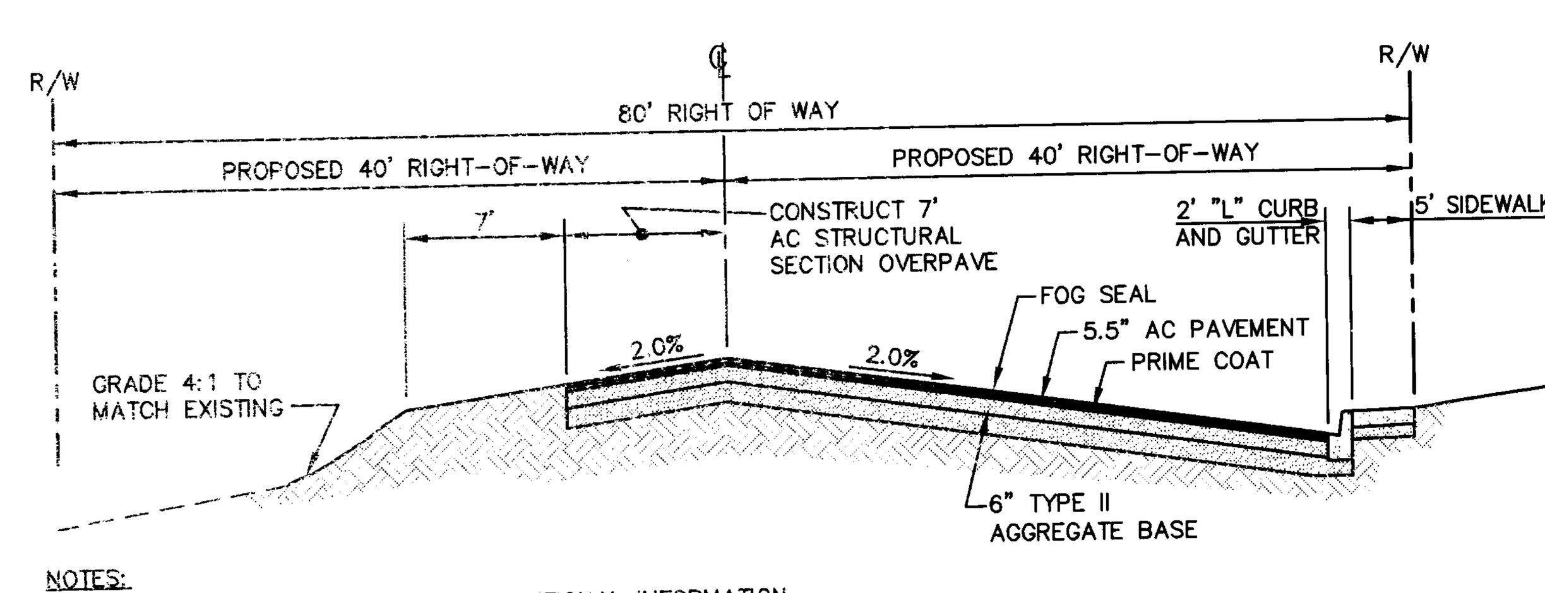
HAMMER LANE-STA. 17+50 TO STA. 24+00

SCALE: 1"=30' HORIZ



PROFILE

SCALE: 1"=30' HORIZ
1"=6' VERT.



NOTES:

1. REFER TO CCAUSD No. 205ALT FOR ADDITIONAL INFORMATION.
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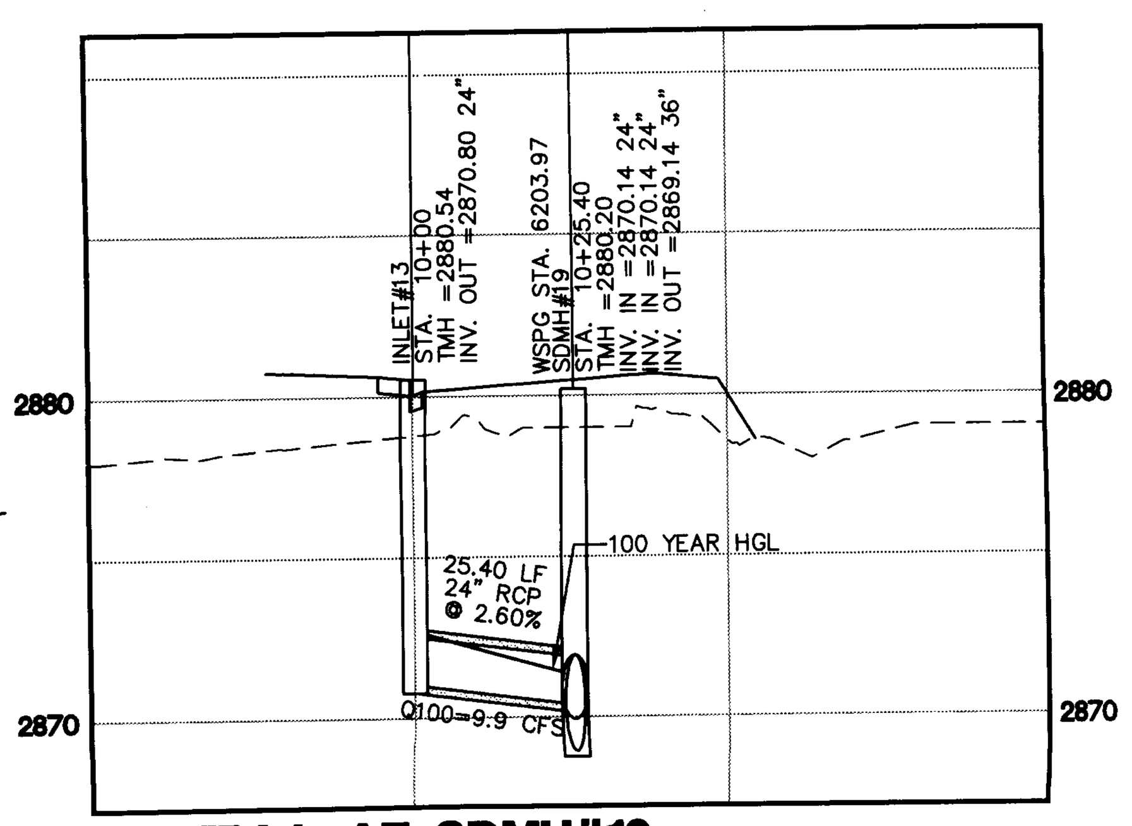
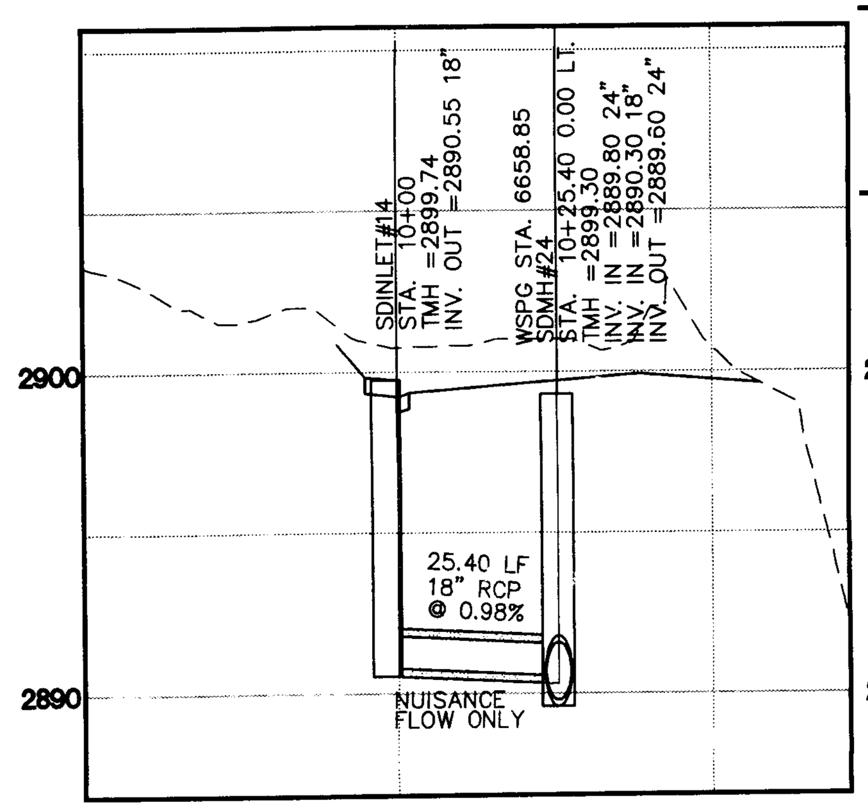


LATERAL AT SDMH#19

SCALE: 1"=330' HORIZ
1"=63' VERT.



LATERAL AT SDMH#24

SCALE: 1"=30' HORIZ
1"=6' VERT.

BASIS OF BEARING

NORTH 00°05'54" WEST, BEING THE BEARING OF THE WEST LINE OF THE EAST HALF (E 1/2) OF THE NORTHWEST QUARTER (MW 1/4) OF SECTION 36 TOWNSHIP 19 SOUTH, RANGE 59 EAST, AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 89, PAGE 3 OF SURVEYS..

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 5LV99 36N6
A RIVET AND PLATE IN A FENCE POST BASE AT THE SOUTHWEST CORNER OF ALPINE RIDGE AND HAMMER LANE
ELEVATION = 2951.24 FEET (869.059 METERS) NAVD 1988 DATUM

NORTH
GRAPHIC SCALE

30 0 15 30 60
1 inch = 30 feet

CONSTRUCTION KEY NOTES

1. CONSTRUCT TYPE 'L' CURB AND GUTTER PER C.C.A.U.S.D. NO 216 OVER 6" MIN. TYPE II BASE COMPACTED TO 95% MIN., UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL INVESTIGATION.
2. CONSTRUCT TYPE 'A' CURB PER DETAIL 1 ON SHEET C6.01.
3. CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET C6.01.
4. CONSTRUCT 4' CONCRETE VALLEY GUTTER PER DETAIL 3 ON SHEET C6.01.
5. CONSTRUCT CONCRETE SIDEWALK PER C.C.A.U.S.D. NO. 234.
6. CONSTRUCT SIDEWALK RAMP PER C.C.A.U.S.D. NO. 235 CASE I.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER C.C.A.U.S.D. NO. 225 WITH GEOMETRICS OF C.C.A.U.S.D. 222A.
8. CONSTRUCT HANDICAP PARKING STALL PER DETAIL 4 ON SHEET C6.01.
9. CONSTRUCT MODIFIED "L" CURB FROM BCR TO BCR PER DETAIL 11 SHEET C6.01
10. INSTALL 3' FLUME PER DETAIL 5 ON SHEET C6.01.
11. INSTALL 6' FLUME PER DETAIL 6 ON SHEET C6.01.

WATER KEY NOTES

NOT ALL ITEMS ARE USED ON THIS SHEET

1. INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 8"X6" TEE AND 6" GATE VALVE) PER UDACS. PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
2. SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
3. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/ STORM DRAIN LINES WITH SEWER/ STORM DRAIN LINES BEING BELOW WATER LINES.
4. INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS. PLATE No. 40. FOUR (4) BOLLARDS PER HYDRANT.
5. INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.ID.A.C.S. PLATE No. 56.
6. INSTALL A 2" METER PER UDACS PLATE No. 7 (POTABLE).
7. INSTALL A 12" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39
8. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
9. INSTALL A RPPA PER UDACS PLATE No. 8.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF PIPE, BASED ON FINISH GRADE FOR ON-SITE WATERLINES. OFF-SITE PUBLIC WATERLINES IN RIGHT-OF-WAY TO BE A MINIMUM 4.5' OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.07 FOR ADDITIONAL INFORMATION.
11. REFER TO MECHANICAL/ PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
12. INSTALL A 2" RPPA PER UDACS PLATE No. 8 (POTABLE).
13. INSTALL A 2x4 MANIFOLD.
14. INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE No. 30, 31 AND 35.
15. INSTALL 8"x8" TEE PER UDACS PLATE No. 30 AND 31.
16. INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
17. INSTALL 8"x90° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
18. INSTALL 8"x45° BEND W/THRUST BLOCK PER UDACS PLATE No. 31.
19. INSTALL 8"x11.25° BEND.
20. INSTALL 12"x8" REDUCER.
21. INSTALL 12"x12" TEE.
22. INSTALL 24"x22.5° BEND.
23. DEFLECT PIPE JOINT 1° PER UDACS 2.07.01.
24. INSTALL 8" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.
25. INSTALL 24"x12" TEE.
26. INSTALL 12"x8" TEE PER UDACS PLATE No. 30 AND 31.
27. INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
28. TRENCH SECTION PER UDACS PLATE No. 17.
29. INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE No. 36.
30. INSTALL 24" GATE VALVE PER UDACS PLATE No. 30, 31 AND 39.

STORM DRAIN KEY NOTES

1. INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
2. INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
3. INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
4. INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
5. INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
6. INSTALL A 2.5' GRATE WITH A 10' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
7. INSTALL A JENSEN PRECAST DI242448 CATCH BASIN.
8. INSTALL A JENSEN PRECAST DI484872 CATCH BASIN.
9. INSTALL A 2.5' GRATE WITH A 10.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
10. INSTALL A 7.5' GRATE WITH AN 11.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
11. INSTALL A 2.5' GRATE WITH A 13.75' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
12. INSTALL A 2.5' GRATE WITH A 15.25' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
13. INSTALL A 2.5' GRATE WITH A 19' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
14. INSTALL A 25' GRATE WITH A 27.5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
15. INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
16. INSTALL A 2.5' GRATE WITH A 5' CURB OPENING MODIFIED TYPE "C" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.

ALL STORM DRAIN PIPE SHALL BE CLASS III (MIN.) UNLESS OTHERWISE NOTED.

SANITARY SEWER KEY NOTES

1. CONSTRUCT A STANDARD 48" PRECAST MANHOLE PER DCSWCS DRAWING No. SD-1A AND SD-1B.
2. INSTALL A CONCRETE COLLAR PER DCSWCS DRAWING No. SD-4.
3. TRENCH SECTION PER DCSWCS DRAWING No. SD-18.
4. INSTALL NEW SANITARY SEWER MAIN UNDER EXISTING WATER LATERAL PER DCSWCS DRAWING No. SD-21.
5. INSTALL A STANDARD 72" PRECAST MANHOLE PER DCSWCS DRAWING No. SD-1A AND SD-1B.
6. INSTALL A LOCKING MANHOLE COVER PER DCSWCS DRAWING No.
7. INSTALL 30 LF OF WATER QUALITY C900 PVC.
8. INSTALL 24" SS ULTRA CORR/ULTRA RIB PIPE USING A CLASS 1B (ASTM BEDDING CLASSIFICATION) BEDDING. PIPE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS FOR DEEP INSTALLATION.
9. INSTALL A SPECIAL MANHOLE PER DETAIL ON SHEET C . H20 RATED.

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 25 of 26.

REVISIONS			
REV	DESCRIPTION	DATE	BY

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Call before you Dig
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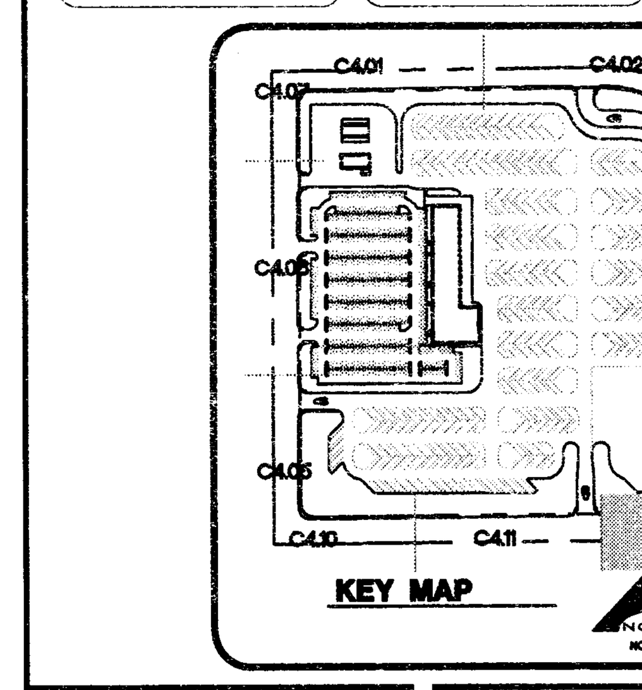
OR 1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-7544

Avoid overhead power line contact
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you Underground
1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS
AND 1-702-229-6611 LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



KEY MAP

SEAL: PROFESSIONAL ENGINEER - STATE OF NEVADA, VERNON R. HARKINS, EXP 6/30/11, CIVIL, No. 009898, 2/17/11

CCSD PROJECT NO. 1549
CCSD REVIEW
APPROVED BY
DATE
DATE DECEMBER 21, 2010
DRAWN BY
CHECKED BY
SUBMITTAL PRE-BID SUBMITTAL
A/E PROJECT NO. 08-816

L. R. NELSON CONSULTING ENGINEERS, INC.
6765 West Russell Road, Suite 200
Las Vegas, Nevada 89118
(702) 798-7978
(702) 451-2296 FAX
·STRUCTURAL ·CIVIL ·SURVEY ·PLANNING

KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor, Las Vegas, Nevada 89148, 702.367.6900 — LAS VEGAS
7701 Directors Boulevard, Suite 770, Austin, Texas 78744, 512.441.8200 — AUSTIN
www.KGAarchitecture.com

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE
LAS VEGAS, NEVADA 89121

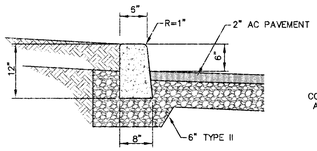
PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: PLAN AND PROFILE-WASHBURN ROAD

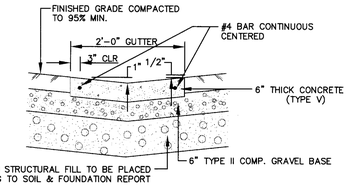
SHEET NO. C4.12
SHEET 41 OF 77

CLV#

HTE#



1 C6.01 ON-SITE 6" "A" TYPE CURB
N.T.S.



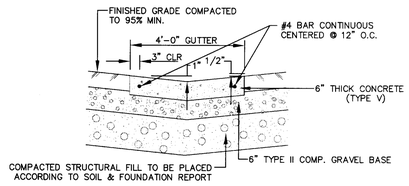
PREPARED BY: CONVERSE CONSULTANTS

REPORT NUMBER: 10-34131-01
DATED: 11-24-2010

NOTE:
PROVIDE EXPANSION JOINTS @ 30'-0" O.C.
AND CONTROL JOINTS @ 5'-0" O.C.

2 C6.01 2' CONCRETE VALLEY GUTTER
N.T.S.

NOTE : BASE MATERIAL AND CONCRETE THICKNESS TO BE CONFIRMED BY SOILS ENGINEER.



PREPARED BY: CONVERSE CONSULTANTS

REPORT NUMBER: 10-34131-01
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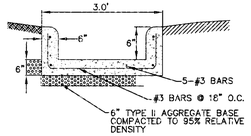
NOTE:
PROVIDE EXPANSION JOINTS @ 30'-0" O.C.
AND CONTROL JOINTS @ 5'-0" O.C.

BASE MATERIAL AND CONCRETE THICKNESS TO BE CONFIRMED BY SOILS ENGINEER.

3 C6.01 ON-SITE 4' CONCRETE VALLEY GUTTER
N.T.S.



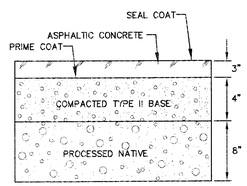
NOTE:
THIS SECTION IS FOR GENERAL REFERENCE ONLY.
AND CONSTITUTES MIN. THICKNESS, ALL INFORMATION WAS OBTAINED FROM GEOTECHNICAL EXPLORATION REPORT:

PREPARED BY: CONVERSE CONSULTANTS

REPORT NUMBER: 10-34131-01
DATED: 11-24-2010

REFER TO REPORT FOR ADDITIONAL COMPACTION PLACEMENT AND COMPACTION REQUIREMENTS

5 C6.01 3' CONCRETE FLUME
N.T.S.



NOTE:
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REPORT NUMBER: 10-34131-01
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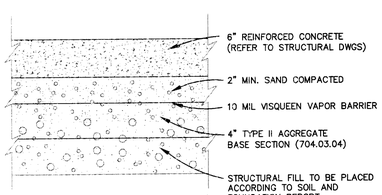
REFER TO REPORT FOR ADDITIONAL COMPACTION PLACEMENT AND COMPACTION REQUIREMENTS

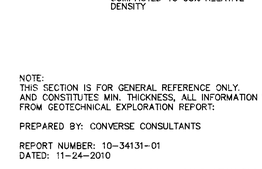
8 C6.01 ON-SITE HEAVY TRAFFIC A.C. PAVEMENT DETAIL
N.T.S.



NOTE:
CONTRACTOR TO ALSO REFER TO STRUCTURAL PLANS

THIS SECTION IS FOR GENERAL REFERENCE ONLY.
SOILS ENGINEERS REPORT TO DICTATE BUILDING PAD SECTON.

10 C6.01 BUILDING PAD SECTION (FOR INFO ONLY)
N.T.S.



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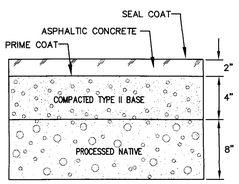
DATED: 11-24-2010

REFER TO REPORT FOR ADDITIONAL COMPACTION PLACEMENT AND COMPACTION REQUIREMENTS

6 C6.01 6' CONCRETE FLUME
N.T.S.



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AND CONSTITUTES MIN. THICKNESS, ALL INFORMATION WAS OBTAINED FROM GEOTECHNICAL EXPLORATION REPORT:

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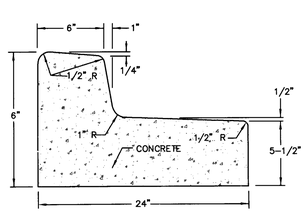
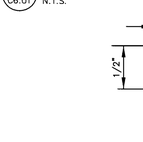
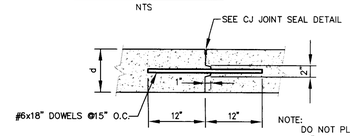
ON-SITE AUTO PARKING PAVEMENT DETAIL
9 C6.01 N.T.S.



11 C6.01 MODIFIED "L" CURB
N.T.S.

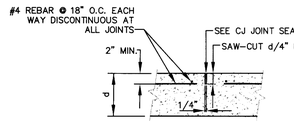


CJ JOINT SEAL DETAIL
NTS

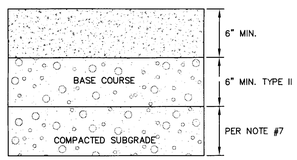


NOTE:
DO NOT PLACE DOWELS CLOSER THAN 15" TO TRANSVERSE JOINTS OR EDGE OF SLAB

DOWELED CONSTRUCTION JOINT
NTS



CONTROL JOINT W/ REINFORCEMENT
NTS

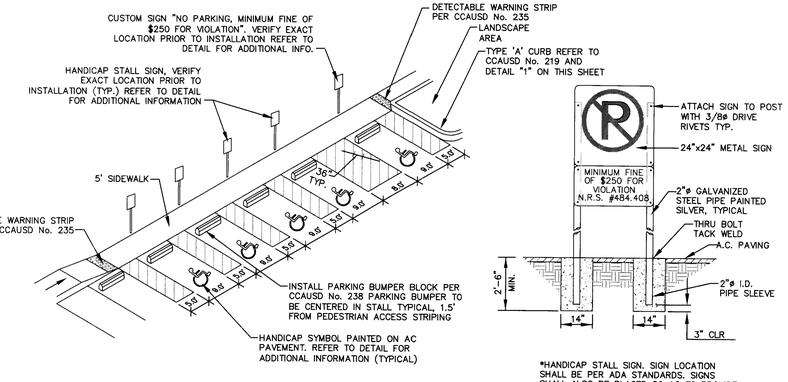


SERVICE YARD AREA
* REFER TO GEOTECHNICAL INVESTIGATION REPORT FOR PLACEMENT OF SUBGRADE AND CONCRETE SECTION

NOTE:
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH fc=4500 PSI, SHALL USE TYPE V CEMENT AND SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO W/C=0.45
2. FINE COURSE AGGREGATE SHALL COMPLY WITH GRADING UNITS OF USS SECTION 409 AND MATERIAL REQUIREMENTS OF USS SECTION 706
3. COURSE AGGREGATE MAXIMUM SIZE OF 1½"
4. MAXIMUM SLUMP SHALL NOT EXCEED 4"
5. NO ADMIXTURES EXCEPT ENTRAINED AIR AND AS APPROVED BY EOR.
6. PROVIDE SAWCUT OR CONSTRUCTION JOINT AT MAXIMUM SPACING OF 15'-0" IN TWO ORTHOGONAL DIRECTION
7. SOIL AND FOUNDATION REPORT
   PREPARED BY: CONVERSE CONSULTANTS
   REPORT NUMBER: 10-34131-01
   DATED: 11-24-2010

REFER TO REPORT FOR ADDITIONAL COMPACTION PLACEMENT AND COMPACTION REQUIREMENTS

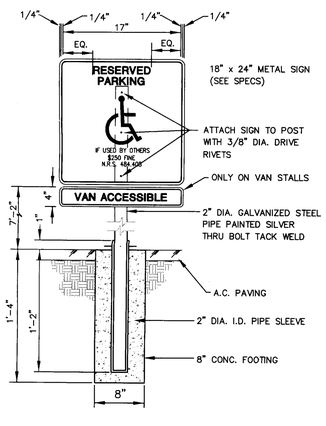
7 C6.01 CONCRETE PAVEMENT DETAILS
N.T.S.



*HANDICAP STALL SIGN. SIGN LOCATION SHALL BE PER ADA STANDARDS. SIGNS SHALL ALSO BE PLACED SO AS TO PROVIDE A MIN. 3'-0" CLEAR ACCESS AISLE.

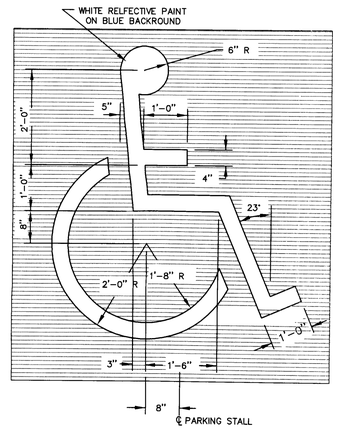
ON-SITE HANDICAP PARKING STALLS
N.T.S.

NO PARKING SIGN
NTS



*HANDICAP STALL SIGN. SIGN LOCATION SHALL BE PER ADA STANDARDS. SIGNS SHALL ALSO BE PLACED SO AS TO PROVIDE A MIN. 3'-0" CLEAR ACCESS AISLE.

ACCESSIBLE PARKING SIGN
NTS



PAINTED HANDICAP SYMBOL
NTS

4 C6.01 HANDICAP PARKING AREA DETAILS
N.T.S.

This grading plan is a part of drainage study #4511 which was received on 2/17/11 and Rejected on 3/7/11. Page 26 of 77

REVISIONS			
REV	DESCRIPTION	DATE	BY

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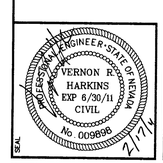
CLARK COUNTY TRAFFIC OPERATIONS
OR
1-702-385-4611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



SEAL

CCSD PROJECT NO.	
KGA NO.	
CCSD REVIEW	
APPROVED BY	
DATE	
DRAWN BY	
CHECKED BY	
SUBMITTAL	PRE-BID SUBMITTAL
A/E PROJECT NO.	08-515
DATE	DECEMBER 21, 2010

L. R. NELSON CONSULTING ENGINEERS, INC.
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- CIVIL
- SURVEY
- PLANNING
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Las Vegas, Nevada 89118
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LAS VEGAS AUSTIN

CLARK COUNTY SCHOOL DISTRICT
DESIGN MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE LAS VEGAS, NEVADA 89121

PROJECT: CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY

DRAWING TITLE: DETAILS

SHEET NO. C6.01
SHEET 69 OF 77

CLV#

HTE#