

APPROVAL _____

 LAS VEGAS FIRE AND RESCUE

7/24/18
 DATE

**ESTIMATED AVERAGE DAILY
SEWER CONTRIBUTIONS**

69 UNITS X 250 GPD/UNIT = 17,250 GPD = 0.017 MGD
TOTAL PEAK FLOW=0.017 X 3.65 (PEAK FACTOR)=0.06205
MGD

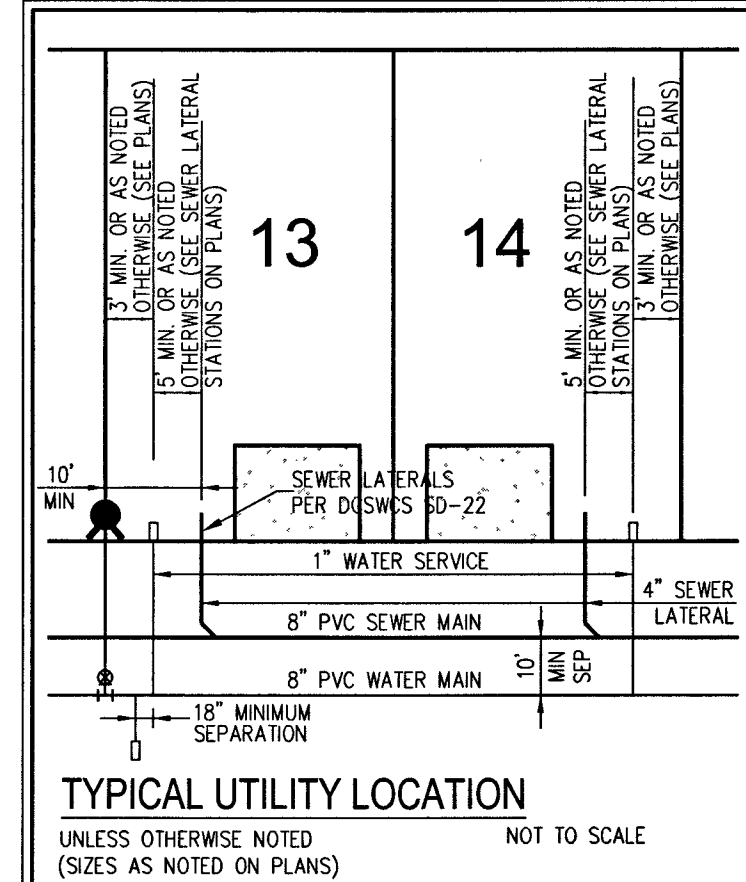
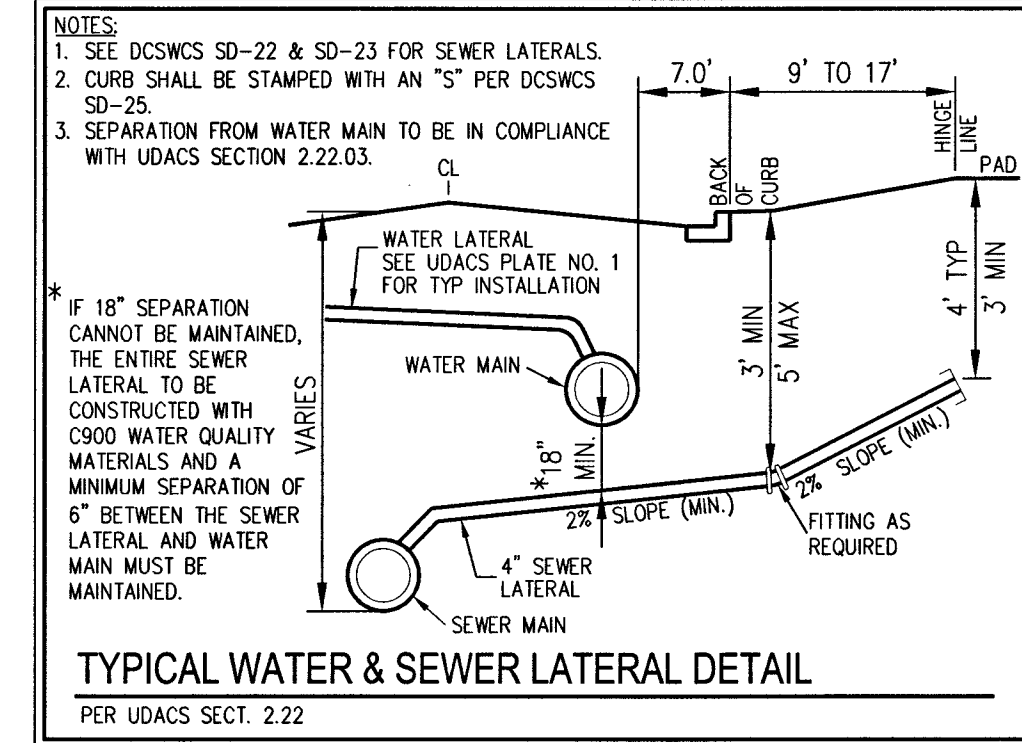
FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1500 GPM @ 20 PSI RESIDUAL
BASED ON:
SQUARE FOOTAGE: 43600 SQUARE FEET
NUMBER OF STORIES: 7 FLOORS
AUTOMATIC FIRE SPRINKLER SYSTEM: NO
ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 0 GPM

HOUSES ABOVE 4800 SQ. FT. REQUIRE NFPA 130 SYSTEM IF FIRE FLOW AVAILABILITY INSUFFICIENT

AUTOMATIC FIRE SPRINKLER SYSTEM
(NFPA 130) FOR HOMES WITH SQUARE
FOOTAGES GREATER THAN 4,800 SQ. FT. NO

OF HYDRANTS PROVIDED: 7



WATER NOTES

1. WATER MAIN JOINT DEFLECTION (P.W.C. #4 - 2-4")
5. WPS PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) INCH PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02. FOR CHANGES IN DEPRESSION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
2. REDUCED PRESSURE PRINCIPLE ASSEMBLY(S)
A. APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8.
B. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. A BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY IDENTIFIED AND STAKED TO THE PROPERTY LINE.
3. ALL SEWER/S TRUNK DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE, WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
4. FITTINGS SHALL NOT FALL UNDER CUBS, CUTTERS OR SIDEWALK.
5. ALL UTILITY LINES SHALL BE INSTALLED WITHIN THE HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
6. THE LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHEN CONNECTIONS OR REPAIRS TO EXISTING UTILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPIDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTOR SHALL BE MAINTAINED AT ALL TIMES.
7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APURTANCES ARE AVAILABLE.
8. ALL ABOVE GROUND UTILITY COVER SHALL CONFORM TO 2.08.04 GRADING BE COMPLETE PRIOR TO WATERLINE INSTALLATION.
9. ALL ABOVE GROUND UTILITY COVER SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
10. DISCLAIMER: EXISTING UTILITIES LOCATION SHOWN HEREON IS APPROXIMATE. THE LVWD WILL BE THE CUSTODIAN OF ALL UTILITIES INFORMATION. THE CONTRACTOR SHALL VERIFY ALL HORIZONTAL LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES LOCATION SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
11. DISCLAIMER: FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CURBS FROM EXISTING CURBS TO THE PROPERTY LINE TO PROPOSED CURB TO PAYMENT PROPOSED LINE OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

PRIVATE STREET ESMT NOTE

ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

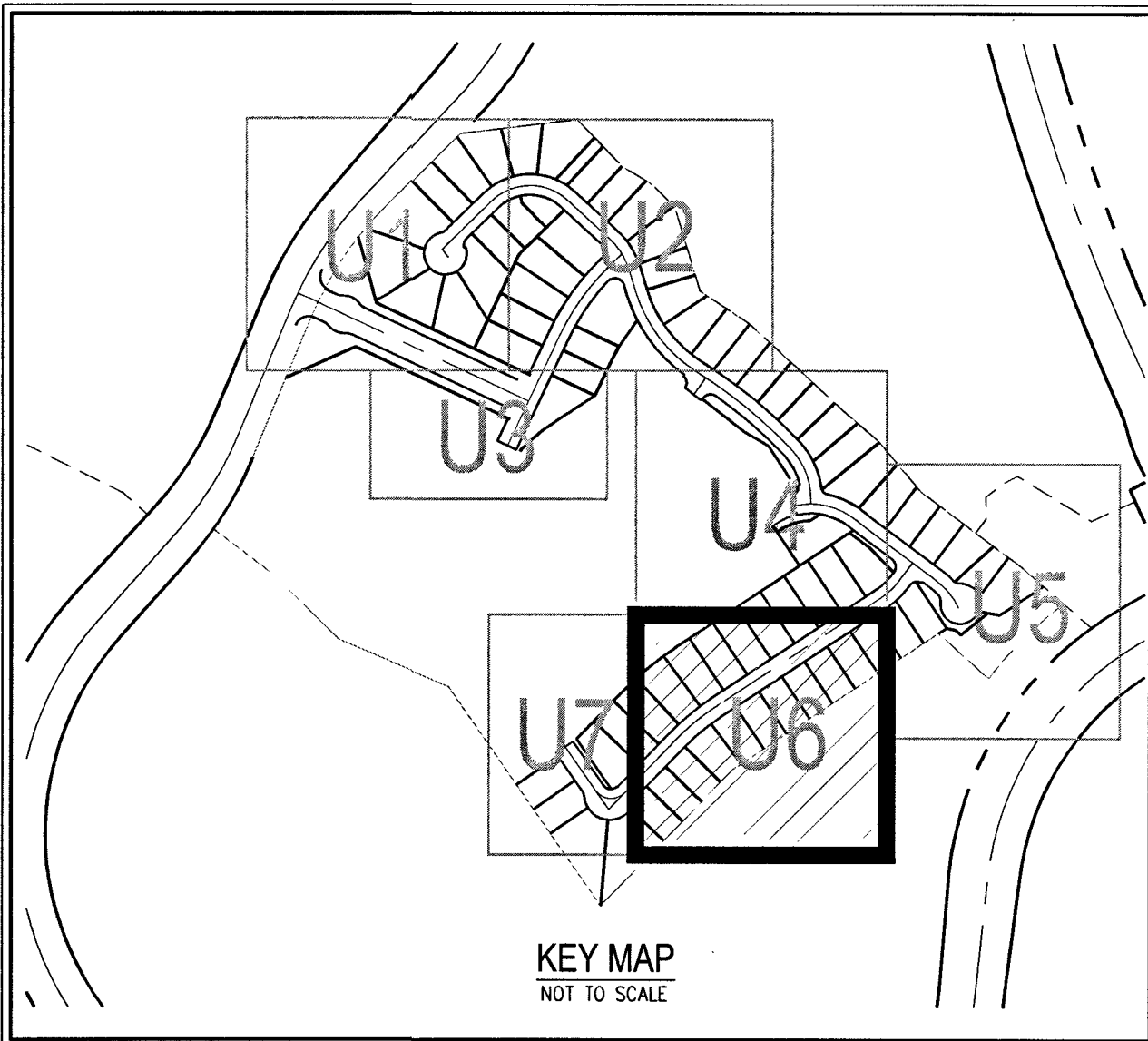
SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS WILL NOT BE RESPONSIBLE FOR THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
811
OR
1-800-237-3600



WATER NOTES

1	INSTALL 12" x 8" REDUCER PER UDACS PLATE NO. 30
2	INSTALL 8" 11.25" BEND PER UDACS PLATE NO. 31
3	INSTALL 8" 22.5" BEND PER UDACS PLATE NO. 31
4	INSTALL 8" 45" BEND PER UDACS PLATE NO. 31
5	INSTALL 8" 6" BEND PER UDACS PLATE NO. 31 (MECHANICALLY RESTRAINED)
6	INSTALL 8" CAP WITH BLOWOFF PER UDACS PLATE NO. 36
7	INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31
8	INSTALL 8" PVC WATER PIPE
9	INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31 AND FIRE HYDRANT ASSEMBLY WITH 6" GATE VALVE PER UDACS PLATE NO. 40
10	INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
11	INSTALL 1" COPPER SERVICE W/ 1" IRRIGATION METER AND 1" POPA PER UDACS PLATE NO. 1 AND 6 CURB STOP DETAIL ON SHEET U-3
12	INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
13	INSTALL 8" x 6" REDUCER PER UDACS PLATE NO. 30
14	INSTALL 6" PVC WATER PIPE
15	INSTALL 8" 45" BEND PER UDACS PLATE NO. 31
16	INSTALL 6" CAP WITH BLOWOFF PER UDACS PLATE NO. 36
17	INSTALL 8" DIP WATER PIPE (GLASS 350)
18	INSTALL FLUSHING VALVE ASSEMBLY PER DETAIL ON SHEET MU-1
19	INSTALL 8" BLOW CAP WITH THRUST BLOCK PER UDACS PLATE NO. 31
20	INSTALL BLOWOFF ASSEMBLY PER UDACS PLATE NO. 36

SEWER NOTES

1. INSTALL 48" SSMM PER DCSWS SD-1A THRU SD-4 AND SD-9
(24" SINGLE LID)
2. INSTALL 8" C-900 SS PER DCSWS SD-1A THRU SD-4 AND SD-9
3. INSTALL 8" PVC SS PER DCSWS SD-5 AND SD-17
4. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWS SECTION 3.16.8
5. 4" SEWER LATERAL (PRIVATE) PER SD-22, SD-23, & SD-25
W/8" x 4" VIE (TYPICAL) (C-900 WHERE SHOWN ON PLANS)
6. INSTALL 60" SSMM PER DCSWS SD-1A THRU SD-4 AND SD-9
(24" SINGLE LID)
7. INSTALL 8" CAP WITH THRUST BLOCK PER DCSWS SECTION 2.2.5
8. INSTALL SS CLEANOUT W/ TRAFFIC-RATED LID (PER DCSWS SD-20)
DRIVEWAY, BACK OF SIDEWALK
9. INSTALL 72" SSMM PER DCSWS SD-1A THRU SD-4 AND SD-9
(24" SINGLE LID)

OWNER/DEVELOPER	ENGINEER
RYLAND HOMES NEVADA, LLC 9275 WEST RUSSELL ROAD, SUITE #400 LAS VEGAS, NV 89148 PH: 702-840-2700 FX: 702-840-2760	SLATER HANIFAN GROUP, INC. 5740 S. ARVILLE STREET, SUITE 216 LAS VEGAS, NV 89118 PH: (702) 284-5300 FX: (702) 284-5399 CONTACT: JERRY SLATER

BENCHMARK

USDA BRASS CAP ON AN IRON PIPE, 140' SOUTHWEST OF TELEPHONE POLE #26994T, SOUTHWEST CORNER OF THE U.S. 95/KYLE CANYON TURNOFF.

ELEVATION = 2817.62 FEET, 858.813 METERS

N.A.V.D. 88

PER THE CLARK COUNTY VERTICAL CONTROL LAST REMEASD 2003

BASIS OF BEARINGS

SOUTH 00°08'59" WEST, BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 147, PAGE 71 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

APPROVED FOR CONSTRUCTION

Shanne Dean

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

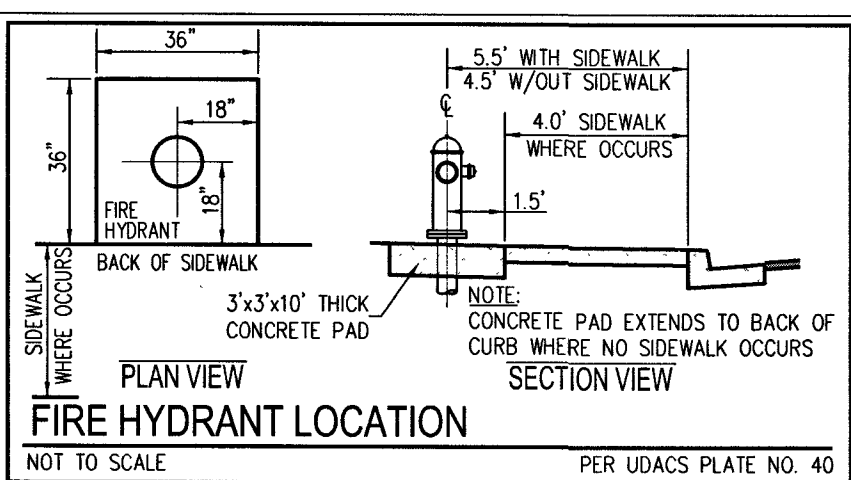
PROJECT No. 126049 FIRST APPROVED DATE: 7-31-18

LWWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

LEGEND	
	SEE SDDI #7 LATERAL PROFILE VIEW ON SHEET PP-12

ALL LOTS/LOTS: 26-44, 130-141

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.



SLATER
HANIFAN
SL-EG
GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300
FAX (702) 284-5399

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HASE 1

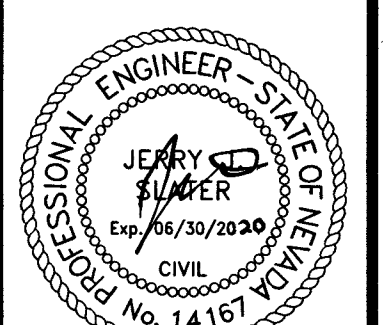
**GREYSTONE NEVADA, LLC
IN VILLAGE 24 PARCEL D
UTILITY PLAN - VI**

SUMMER

DATE	7/17/89
S33 T20S R59	

DRAFTER: DNP
DESIGNER: BCC
CHECKED: BCC

PROJECT NO.
CAL1701-000



U-6
SHEET 37 OF 41

PROJ #126049 AGR #116715 QS 137-33-SE