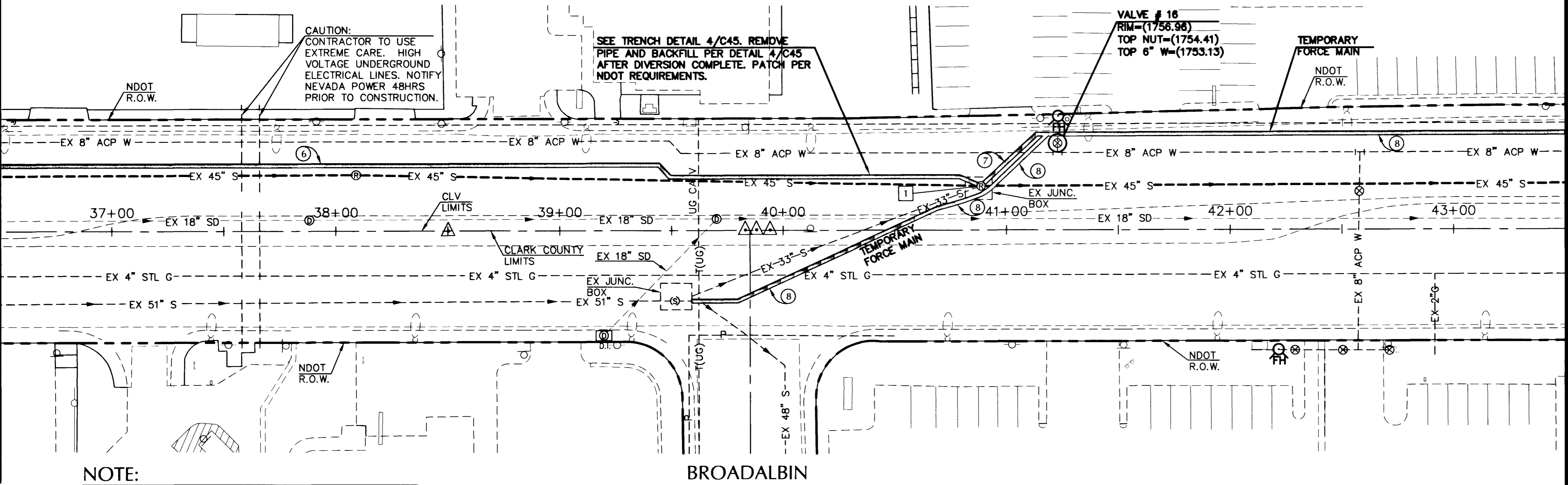


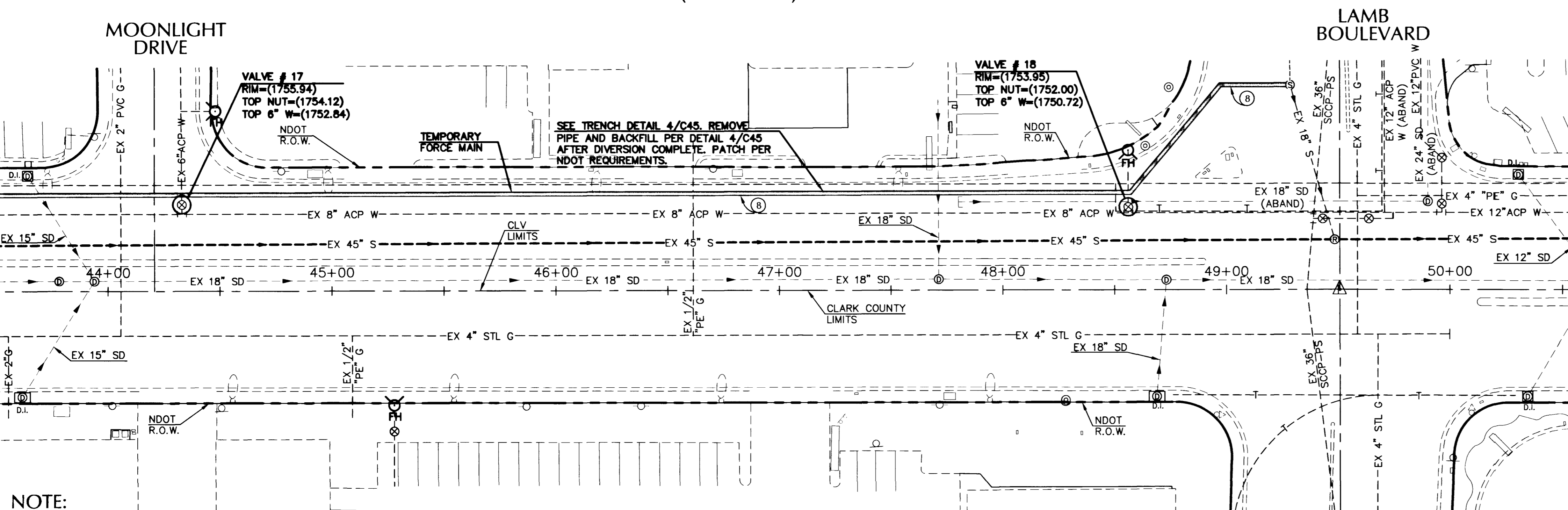
MATCHLINE STA: 36+50.00 FOR CONTINUATION SEE SHEET C39



NOTE:
IT IS THE CONTRACTORS RESPONSIBILITY TO POTHOLE ALL WATER LINE, GAS LINE AND FORCE MAIN DIVERSION CROSSINGS WITH PROPOSED SEWER CONSTRUCTION PLANS. NOTIFY LVWD AND SWD 48HRS PRIOR TO CONSTRUCTION. PLEASE NOTIFY ENGINEER IN CASE OF ANY CONFLICTS.

BROADALBIN DRIVE
CHARLESTON BOULEVARD
(SR-159)

MATCHLINE STA: 43+50.00 FOR CONTINUATION SEE ABOVE



NOTE:
WHEN A WATERLINE IS LESS THAN EIGHTEEN (18) INCHES ABOVE A SEWER OR STORM DRAIN LINE OR ANYTIME A WATER LINE IS BELOW A SEWER OR STORM DRAIN LINE THE FOLLOWING PROVISIONS SHALL APPLY:

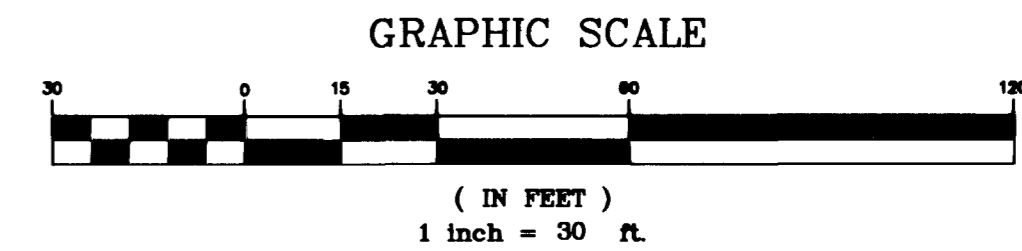
- 1) A REASONABLE EFFORT MUST BE MADE TO PLACE WATER AND SEWER PIPELINE JOINTS AN EQUAL DISTANCE FROM THE CROSSING POINT. THIS REQUIREMENT DOES NOT APPLY TO WELDED JOINTS.
- 2) A MINIMUM VERTICAL SEPARATION OF SIX (6) INCHES MUST BE MAINTAINED AND STRUCTURAL SUPPORT IN THE FORM OF A CEMENT SLURRY ENCASEMENT WHICH WILL EXTEND UPWARD FROM THE SEWER/STORM DRAIN LINE TO THE SPRINGLINE OF THE WATER LINE.
- 3) THE CROSSING SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING OPTIONS:
 - A) THE SEWER LINE MUST BE CONSTRUCTED OF WATER SUPPLY QUALITY MATERIALS MEETING AWWA STANDARDS.
 - B) THE SEWER OR WATERLINE SHALL BE TOTALLY ENCASED BY A MINIMUM FOUR (4) INCH THICK, 300 PSI CEMENT SLURRY, A DISTANCE OF TEN FEET ON EACH SIDE OF THE CROSSING MIDPOINT. THIS OPTION IS NOT AVAILABLE FOR ACP.
 - C) THE SEWER OR WATER LINE SHALL BE INSTALLED IN A SLEEVE OF WATER QUALITY PIPE OR STANDARD CASING, WITHOUT JOINTS, TEN FEET ON EACH SIDE.

CHARLESTON BOULEVARD
(SR-159)

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY!
Call before you Dig- 1-800-227-2600 UNDERGROUND SERVICE ALERT (U.S.A.)

AVOID OVERHEAD POWER LINE CONTACT
Call before you OVERHEAD 1-702-593-6111 NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

MARTIN & MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY. FOR LVWD FACILITIES, ENGINEER SHALL SUBMIT REVISED DRAWING FOR CONFLICT RESOLUTION.



BASIS OF BEARING

N 89°53'41" E BEING THE SOUTH LINE OF SE 1/4 SECTION 31 TO 20S, R 62E, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY NEVADA AS DELINEATED ON THAT CERTAIN RECORD OF SURVEY IN FILE 66 PAGE 52, RECORDED MAY 13, 1993.

BENCHMARK

CITY OF LAS VEGAS DATUM BM CLV 2LV02-32SWS A RIVET AND SQUARE PLATE IN TOP OF CURB @ NE CORNER OF CHARLESTON & LAMB. NAVD 88 ELEVATION 534.458 METERS (1753.47 FEET)

CONSTRUCTION NOTES

REACH #	No.	ITEM
REACH # 1	1	BYPASS PUMP 36" SEWER FLOW TO SANDHILL INTERCEPTOR 51" SEWER AS PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
	2	BYPASS PUMP LOCAL FLOWS FROM 36" SEWER AND 27" SEWER TO SANDHILL INTERCEPTOR MANHOLE AT DEL AMO DRIVE PER SPECIAL PROVISION SECTION 642. PROVIDE ALL NECESSARY TRAFFIC CONTROL DURING INSTALLATION, REMOVAL, BACKFILLING AND PAVING OPERATIONS. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
REACH # 2	3	PUMP 8" SEWER TO MH# 926 AS PER SPECIAL PROVISION SECTION 642. PROVIDE ALL NECESSARY TRAFFIC CONTROL DURING INSTALLATION, REMOVAL, BACKFILLING AND PAVING OPERATIONS. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
	4	CONSTRUCT PERMANENT GRAVITY DIVERSION AT STA: 26+10 AS PER SPECIAL PROVISION SECTION 642. SEE DETAIL 5 ON SHEET C45. PROVIDE THE NECESSARY FLOW DIVERSIONS TO CONSTRUCT NEW SEWER MANHOLES ON 39" AND 51" SEWERS AND INSTALL NEW 39" SEWER. REMOVE AND REPLACE CURB AND MEDIAN PAVING. REPAVE TRENCH AS PER DETAIL 4/C45. BID ITEM 642.01.01.
REACH # 3	5	DIVERT 8" SEWER TO NEW MH ON 39" SEWER AT STA: 26+11.58 AND PUMP 12" SS TO NEW MH ON 39" SEWER. BID ITEM 642.00.01 AND PUMP 12" SS TO NEW MH ON 39" SEWER. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.00.01.
	6	PUMP PRINCE LANE 10" SS EAST TO MH# 932 OR WEST TO ITEM 5 ABOVE PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.00.01.
REACH # 4	7	PUMP 8" SS TO MH# 932 AND THROUGH EX. 33" S TO EXISTING SANDHILL INTERCEPTOR MH AT BROADALBIN ST AS PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
	8	PUMP LAMB BOULEVARD 18" SEWER WEST TO SANDHILL INTERCEPTOR JUNCTION BOX AT BROADALBIN ST AS PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
REACH # 5	9	PUMP 8" S EAST TO MARION DRIVE AS PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
	10	PUMP EXISTING 8" AND FLOW FROM ITEM 9 TO THE EXISTING 36" DIVERSION FROM CHARLESTON SEWER TO THE SANDHILL RELIEF SEWER AT ARLINGTON ST. AS PER SPECIAL PROVISION SECTION 642. REMOVE AND REPLACE BASE AND PAVEMENT AS PER DETAIL 4/C45. BID ITEM 642.01.01.
REACH # 5	11	DIVERT 51" SEWER TO 66" SEWER VIA EXISTING 36" DIVERSION AS PER SPECIAL PROVISION SECTION 642. BID ITEM 642.01.01. PROVIDE SUPPLEMENTAL PUMPING IF 36" SEWER CANNOT CARRY WASTEWATER DIVERSION FLOW FROM 51" SEWER.

WASTEWATER FLOW INFORMATION

No.	ITEM
7	AT MANHOLE #932 THE AVERAGE DAILY FLOW MEASURED AT 12.29 MGD WITH A PEAK OF 19.45 MGD IN NOVEMBER 2002.

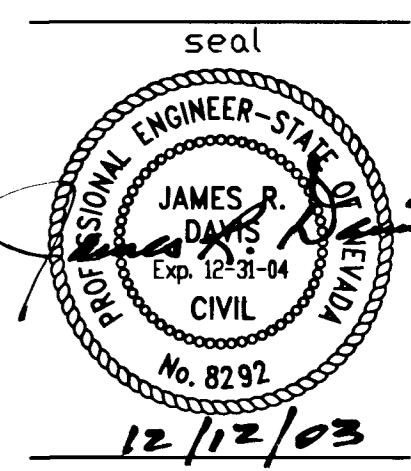
NOTE:

PROTECT WATERLINES IN PLACE. WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET, BACKFILL TRENCH WITH CONTROL LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY, ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.19.

Robert J. Morgan 12/19/03
L.V.V.W.D. DATE

no.	description of revisions	date	name

PROJECT NO. 1938.00
DATE 06-23-03
DRAWN BY JDM
DESIGN BY ARS
CHECKED BY DHM



12/12/03
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CHARLESTON BOULEVARD
SEWER REHABILITATION
SANDHILL ROAD TO NELLIS BOULEVARD
REACH 2 & 3 DIVERSION

sheet
C40
SHEET 40 OF 45
drawing number
307-V841

BID# 04.1730.06

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