

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. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AND THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. (CALL BEFORE YOU DIG 800-227-2620).
3. CONSTRUCTION SURVEY: GRADES ARE GIVEN FROM TOP OF STAKES OR NAILS. THE CONTRACTORS ARE CAUTIONED TO OBSERVE THE FOLLOWING RULE IN USING THE GRADE DATA GIVEN BY THIS OFFICE: THREE CONSECUTIVE POINTS THAT ARE SHOWN TO BE ON THE SAME RATE OF SLOPE MUST BE USED IN COMMON IN ORDER THAT ANY VARIATION OUT OF A PERFECT STRAIGHT GRADE MAY BE DETECTED. IN CASE ANY SUCH DISCREPANCY IS FOUND, THE SAME MUST BE REPORTED OTHERWISE THIS OFFICE WILL NOT BE RESPONSIBLE FOR ANY ERROR IN THE GRADE OF THE FINISH WORK.
4. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED AT ALL STREET INTERSECTIONS PER CLARK COUNTY DRAWING 235 EXACT LOCATION OF RAMP TO BE DETERMINED IN FIELD BY A CLARK COUNTY INSPECTOR.
5. STANDARD STREET SECTIONS PER CLARK COUNTY STANDARD DRAWINGS UNLESS OTHERWISE NOTED.
6. CURB AND GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED AS SOON AS POSSIBLE AFTER CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
7. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF INCH ABOVE LIP OF THE GUTTER (INCLUDING OPEN GRADE).
8. EXACT LOCATION OF ALL SAWCUTS TO BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.
9. VALLEY GUTTER WITH A GRADE OF FOUR TENTHS OF ONE PERCENT OR LESS SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PROPER DRAINAGE ACROSS ALL VALLEY GUTTERS.
10. 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.
11. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN ON THE DRAWINGS. CONTRACTOR TO VERIFY THE EXACT LOCATION OF UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR'S RESPONSIBILITIES REGARDING UTILITIES SHALL BE AS REQUIRED UNDER SECTION 107.07 OF THE UNIFORM STANDARD SPECIFICATIONS FOR CLARK COUNTY AREA, NEVADA AND AS PROVIDED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING OVER OR NEAR ANY EXISTING GAS MAINS.
12. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT SURROUNDING IMPROVEMENTS, WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL CRASH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO THE SATISFACTION OF THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
13. FENCES, SIGNS, STRUCTURES, LIGHTS AND OTHER EXISTING IMPROVEMENTS WITHIN STREET R/W SHALL BE REMOVED WHERE SHOWN ON THE CONTRACT DRAWINGS, AND AS REQUIRED BY THE ENGINEER.
14. REPLACEMENT, RELOCATION OR RECONSTRUCTION OF ALL EXISTING IMPROVEMENTS INCLUDING FENCES, WALL SIGNS, AND ALL OTHER ITEMS APPLICABLE TO THIS CONTRACT SHALL BE AS REQUIRED BY THE ENGINEER.
15. ALL BARRICADED AND TEMPORARY TRAFFIC CONTROL DEVICES OR METHODS USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "NEVADA TRAFFIC CONTROL MANUAL", 986 PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION, EXCEPT AS OTHERWISE PROVIDED IN THE CONTRACT DRAWINGS.
16. THE CONTRACTOR SHALL BACKFILL AND FINAL GRADE ALL CUT OR FILL SLOPES TO MATCH EXISTING CONDITIONS TO THE SATISFACTION OF THE ENGINEER.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERTICAL ADJUSTMENT OF ALL EXISTING SANITARY, WATER AND STORM SEWER MANHOLES TO THE FINAL FINISH GRADES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE CONTRACT DRAWINGS AND IN ACCORDANCE WITH SECTION 609 OF THE "STANDARD SPECIFICATIONS".
18. ALL GRADING SHALL BE IN ACCORDANCE WITH THE SPECIFICATION MANUAL AND THE SOILS REPORT AS PREPARED BY
19. WHERE CONFLICTS OCCUR THE MOST RESTRICTIVE SHALL GOVERN.
20. 48 HOURS PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT:

NEVADA ENERGY COMPANY PHONE - (702) 402-8400
CENTURYLINK TELEPHONE COMPANY PHONE - (702) 244-7055
SOUTHWEST GAS CORPORATION PHONE - (702) 651-2111
LAS VEGAS VALLEY WATER DISTRICT PHONE - (702) 870-2011
21. PRIVATE STREETS, CURB & GUTTER AND VALLEY GUTTERS REFLECTED ON THESE PLANS ARE TO BE INSPECTED BY A CLARK COUNTY INSPECTOR.

1. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
2. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY GROUND MOUNTED STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING COUNTY STREETS IMMEDIATELY AFTER FIRST GROUND WORK IS ACCOMPLISHED AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
3. ALL CONSTRUCTION SIGNING, BARRICADING AND PAVEMENT MARKINGS SHALL CONFORM TO THE NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK - 1986, AND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
4. 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 COUNTY TRAFFIC MANAGER.
5. THE DEVELOPER SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL PERMANENT TRAFFIC SIGNALS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CLARK COUNTY AREA STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH CLARK COUNTY AREA STANDARDS. ALL SIGNS SHALL USE CLASS W SHEETING.
6. IF A PROPOSED STREET LIGHT STANDARD IS FIELD LOCATED TO WITHIN FIVE (5) FEET OF A SIGN SHOWN TO BE MOUNTED ON A SIGN POST, CHANGE SIGN MOUNTING TO ONE OF THE STREETLIGHT STANDARD.
7. PRIOR TO CONSTRUCTION, THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERS FROM THE CURRENT PLANNING DIVISION OF THE DEPARTMENT OF COMPREHENSIVE PLANNING.
8. ALL TRAFFIC SIGNAL POLE ASSEMBLIES, STEEL PEDESTAL FOR CABINETS AND STREET LIGHT POLES SHALL BE GALVANIZED PER ASTM A123.
9. ALL STREET LIGHTING INSTALLATIONS EXCEPT NOTED ON THE STREET LIGHTING STANDS, SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA, LATEST EDITION OF EACH.
10. THE FOLLOWING CLARK COUNTY UNDERGROUND FACILITIES MAY BE LOCATED IN YOUR PROJECT AREA: STREET LIGHTING, TRAFFIC SIGNALS, AND FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.) INTERCONNECT CABLE. YOU MUST CONTACT THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION AT 455-6000 FOR LOCATIONS AT LEAST 48 HOURS PRIOR TO WORKING IN THE AREA. CLARK COUNTY IS NOT A MEMBER OF "CALL BEFORE YOU DIG" (UNDERGROUND SERVICE ALERT), AND A CALL TO THAT ORGANIZATION DOES NOT RELIEVE YOU OF LIABILITY FOR CLARK COUNTY FACILITIES.
11. F.A.S.T. INTERCONNECT CABLE POLICY IS IN EFFECT. INTERCONNECT CABLE MUST BE INSTALLED AT ALL TIMES. DEVELOPER/CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD INTERCONNECT CABLE WHILE PERMANENT CABLE IS BEING RELOCATED. TEMPORARY AERIAL INSTALLATION MUST BE ACCEPTABLE TO THE COUNTY TRAFFIC MANAGER AND TO F.A.S.T. ANY DAMAGE TO THIS CABLE IS DEEMED IN EMERGENCY BY THE CITY OF LAS VEGAS. CLARK COUNTY AND NDOT MUST BE REPAIRED IMMEDIATELY TO F.A.S.T. ACCEPTANCE. \$2,500 PER DAY DAMAGES MAY BE ASSESSED AFTER 24 HOURS HAS ELAPSED FROM TIME OF BREAK OR DAMAGE.
12. ALL NEW OR REPLACEMENT TRAFFIC SIGNAL LOOPS SHALL BE INSTALLED USING CABLE-IN-DUCT WIRING. SHALL HAVE INDEPENDENT LEAD-IN WIRES FOR EACH LOOP FROM THE CONTROLLER TO THE PULL-BOX, AND EACH LEAD-IN SHALL BE INDIVIDUALLY TAGGED.
13. TRAFFIC SIGNAL PEDESTRIAN HEADS SHALL BE THE L.E.D. TYPE.
14. ELECTRICAL POWER SERVICE POINT LOCATION(S) FOR STREET LIGHTING AND TRAFFIC SIGNALS MUST BE INDICATED ON THE PLANS. IF CONNECTING TO AN EXISTING CIRCUIT, INDICATE LOCATION OF EXISTING SERVICE POINT FOR EACH CIRCUIT.
15. WHEN STREETLIGHTS ARE TO BE CONNECTED TO AN EXISTING CIRCUIT, THE ENGINEER MUST CERTIFY THAT THE EXISTING CIRCUIT IS CAPABLE OF HANDLING THE ADDITIONAL CIRCUIT LOAD.
16. CLARK COUNTY RESERVES THE RIGHT TO REJECT STREET LIGHT AND TRAFFIC SIGNAL POLES AND ASSEMBLIES WHICH HAVE A "STRIPED" APPEARANCE.
17. TWO WEEKS PRIOR TO BEGINNING OF CONSTRUCTION, MODIFICATION OR RELOCATION OF ANY TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION OF THE DATE THAT WORK WILL BEGIN.
18. THREE (3) NORMAL WORKING DAYS PRIOR TO TURN-ON OR COMPLETION OF MODIFICATION(S) TO A TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION THAT WORK IS BEING COMPLETED AND THE PROPOSED DATE OF COMPLETION.

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 INSPECTOR.
3. CURB AND GUTTER WITH A GRADE OF LESS THAN 4/10 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 (1/2") INCH ABOVE THE UP 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 & 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 PLACED 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 OFF-SITE INSPECTION AT (702)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) FEET OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. AREAS COVERED BY A SINGLE PATCH OR TRENCH SHALL BE LIMITED TO A MAXIMUM OF 10 FEET. NO OPEN TRENCH IS PERMITTED IN EXCESS OF 500 FEET OR LENGTH REQUIRED 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 OF THE TRENCH HAS BEEN COMPLETED AND PRIOR TO OPENING THE WORK AREA BACK TO TRAFFIC AND IS TO BE MAINTAINED BY THE PERMITTEE. A PERMANENT PATCH IS TO BE IN PLACE WITHIN THIRTY (30) DAYS AFTER THE INSTALLATION OF THE TEMPORARY PATCH.
12. COMPACTION TESTS ARE REQUIRED.

NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 1745 E, DATED SEPTEMBER 27, 2002, TO REFLECT A LOMR. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR ZONE A OR SPECIAL FLOOD HAZARD AREA.

1. NONE



NORTH 88°54'00" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN FILE 197, PAGE 2 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

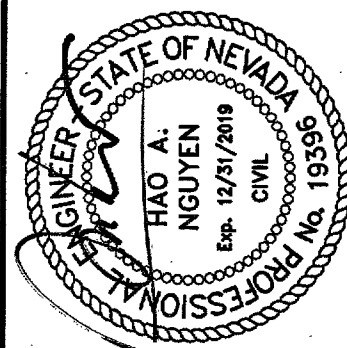
CITY OF LAS VEGAS VERTICAL CONTROL POINT 8LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.

ELEVATION: 2715.84 (FEET)
827.790 (METERS)

CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).

L# 17-0167C

CLV DWG# 107Y507C

[illegible]

PROJECT NO.
398-A833

SIGN: _____
DRAWN: _____
CHECK: _____

T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\Projects\300\398-A833\DWG\Production\A833cC.dwg

TOUCHSTONE LIVING

GRAND CANYON AND ROSADA

CLARK COUNTY GENERAL NOTES

DRAWING

C3

3 OF 22 SHTS

HTE:

ABBREVIATIONS table with columns for abbreviations and full names. Includes categories like AIR, DRIVE, PEDESTRIAN ACCESS, STRUCTURE, etc.

SANITARY SEWER MANHOLE SCHEDULE-ALT A table with columns: MH #, TMH, INV IN, INV OUT, NORTHING, EASTING. Rows include EX SSMH #8, SSMH #1-ALT A, SSMH #2-ALT A, SSMH #3-ALT A, SSMH #4, SSMH #5, SSMH #6, SSMH #7, SSMH #8, SSMH #9, SSMH #10.

SANITARY SEWER MANHOLE SCHEDULE-ALT B table with columns: MH #, TMH, INV IN, INV OUT, NORTHING, EASTING. Rows include EX SSMH #8, SSMH #1-ALT B, SSMH #2-ALT B, SSMH #3-ALT B, SSMH #4, SSMH #5, SSMH #6, SSMH #7, SSMH #8, SSMH #9, SSMH #10.

QUANTITY ESTIMATE table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like 2" AC PAVEMENT (PRIVATE), 3" AC PAVEMENT (PUBLIC), 4" TYPE II AGGREGATE BASE MATERIAL (PRIVATE), etc.

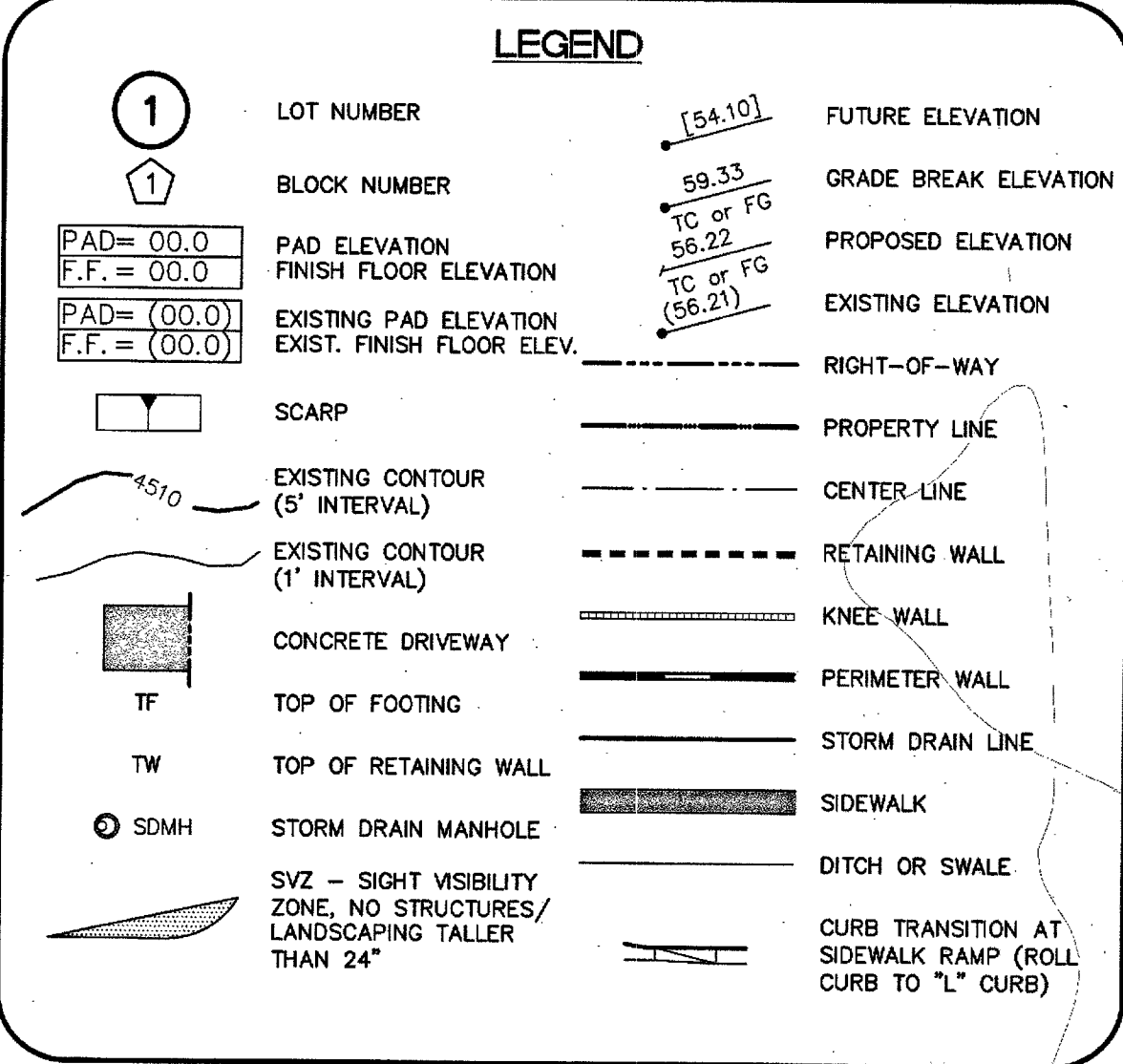
STREET IMPROVEMENT - PUBLIC (CLARK COUNTY) table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like 3" AC PAVEMENT, 4" TYPE II AGGREGATE BASE MATERIAL, 6" TYPE I AGGREGATE BASE MATERIAL, etc.

WATER - PUBLIC table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like 6" PVC WATERLINE, 6" DIP WATERLINE, 6"-90° BEND PER UDACS PLATE NO. 31, etc.

SEWER - PUBLIC (ALT A) - TO BE CONSTRUCTED table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like 8" PVC SANITARY SEWER PIPE, 8" C900 SANITARY SEWER PIPE, 24" PVC SANITARY SEWER PIPE, etc.

SEWER - PUBLIC (ALT B) - FOR BIDDING PURPOSES ONLY table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like 8" PVC SANITARY SEWER PIPE, 8" C900 SANITARY SEWER PIPE, 4" PVC SANITARY SEWER LATERAL (PRIVATE), etc.

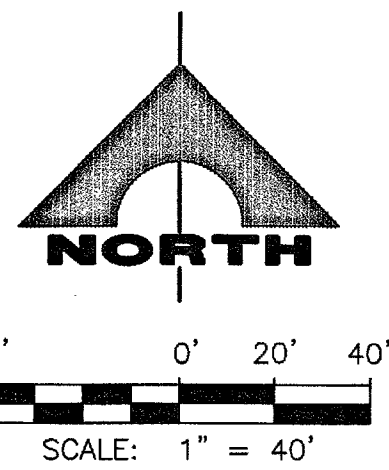
STREET SIGNS/STRIPING - PUBLIC table with columns: DESCRIPTION, UNIT, TOTAL. Includes items like (2) STREET NAME SIGN (D3), (2) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1), 30" STOP SIGN (R1-1), etc.



Call before you Dig logo, FAST logo, and CALL BEFORE YOU DIG OVERHEAD logo with phone numbers 1-800-227-2800, 1-702-432-5300, and 1-702-227-2929.

APPROVED FOR CONSTRUCTION stamp with signature of J. S. HADJI, PROJECT NO. 126005, and DATE 4/16/18.

Project information block including PROJECT NO. 398-A833, 1555 S. RAINBOW BLVD., LAS VEGAS, NV 89146, GCV logo, ENGINEERS SURVEYORS, TOUCHSTONE LIVING, GRAND CANYON AND ROSADA, GENERAL NOTES, MANHOLE SCHEDULE, AND QUANTITIES, and DRAWING C4.



QUANTITY ESTIMATE

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES

PUBLIC DRAINAGE EASEMENT (CITY OF LAS VEGAS)

DESCRIPTION	UNIT	TOTAL
5' WIDE CONCRETE CROSS CUTTER	LF	360

NOTE

CARS ALLOCATED ROOM ON SITE TO TURN AROUND AND EXIT FORWARD FOR DRIVEWAYS ALONG WASHBURN.

NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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.

NOTE

ALL ON-SITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

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

BAZIS OF BEARING

NORTH 88°54'00" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN FILE 197, PAGE 2 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.

ELEVATION: 2715.84 (FEET)
827.790 (METERS)

CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

NOTE

1. THE GEOTECHNICAL EXPLORATION PROPOSED 10+ ACRE SINGLE-FAMILY RESIDENTIAL DEVELOPMENT LOCATED EAST OF GRAND CANYON DRIVE, NORTH OF ROSADA WAY, LAS VEGAS, NV AS PREPARED BY GEOTEK RESIDENTIAL, PROJECT NUMBER 13778-LVR DATED OCTOBER 17, 2017.

2. CONSTRUCTION FOR BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE BUILDING SAFETY AND MAINTENANCE DEPARTMENT.

3. WALLS CONSTRUCTED OTHER THAN THOSE AS DETAILED ON THIS SHEET ARE TO BE CONSTRUCTED BY WALL SUB-CONTRACTOR, DETAILS AND STRUCTURAL CALCULATIONS PREPARED BY OTHERS.

4. NO OBJECT OVER 24" OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES CAN BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE.

5. ALL PRIVATE STREETS ARE TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

Call before you Dig

Avoid cutting underground utility lines. It's costly.



1-800-227-2800

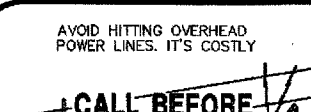


Call before you Dig

Underground

1-702-432-5300

SYSTEM OF TRANSPORTATION

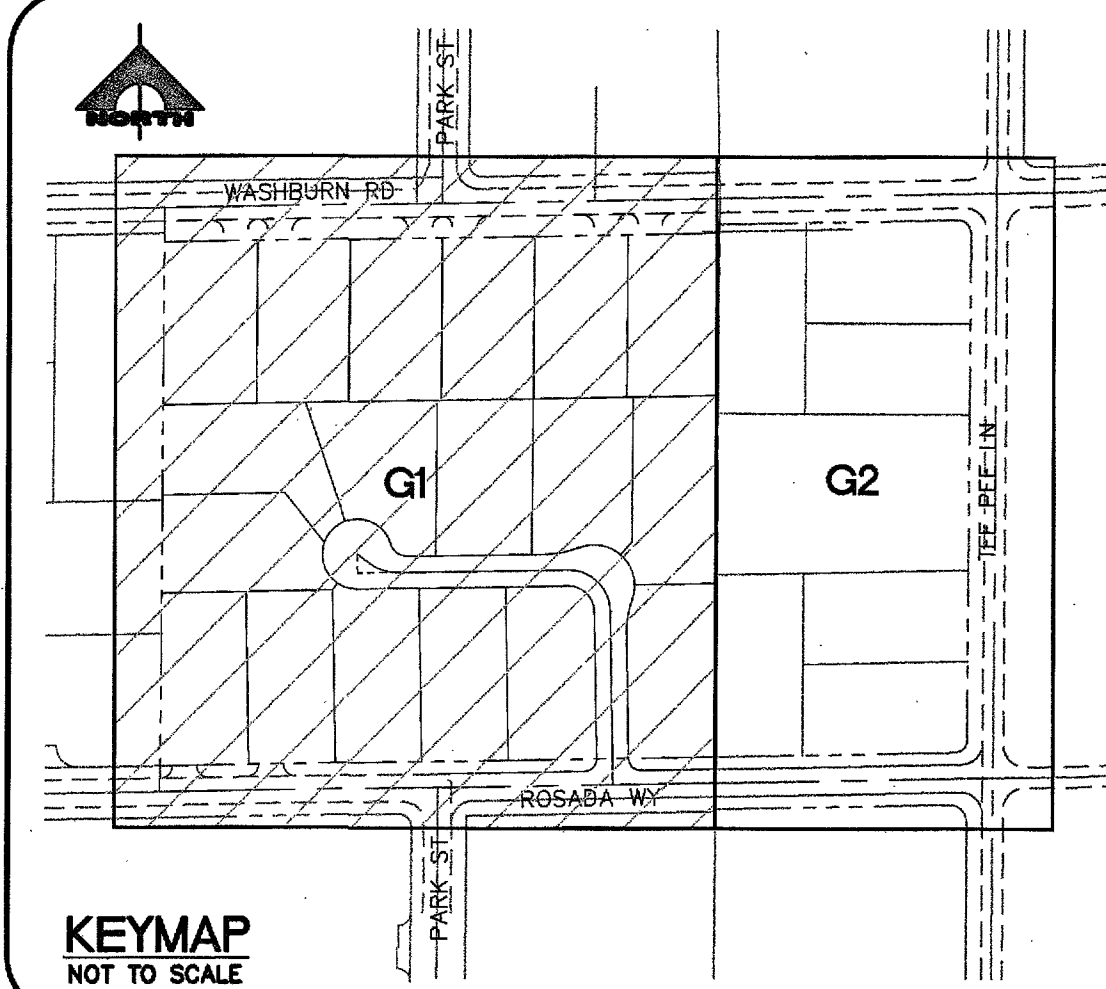
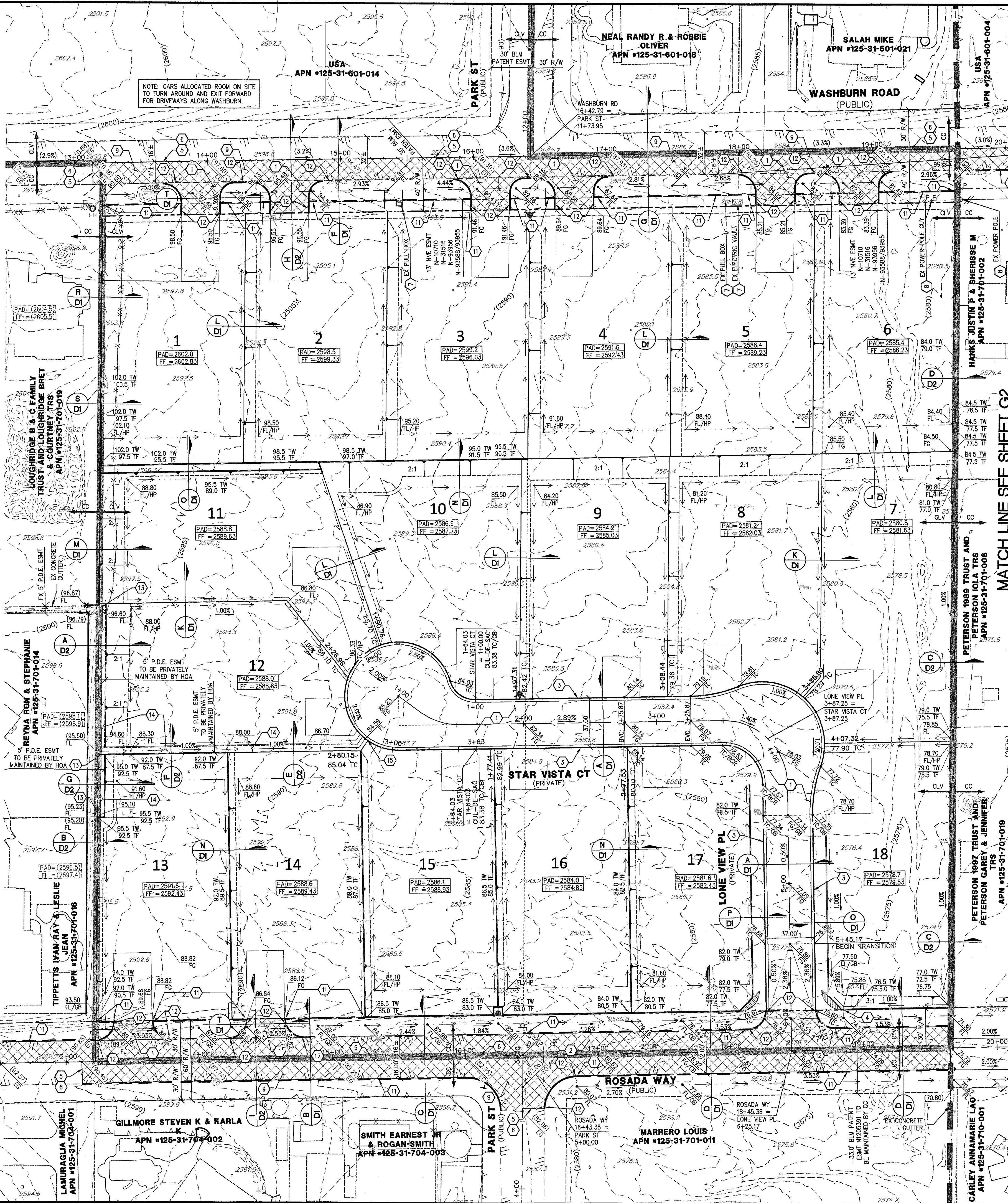


Call before you Dig

Underground

1-702-227-2929

SYSTEM OF TRANSPORTATION



CONSTRUCTION NOTES

1. CONSTRUCT 2" AC OVER 4" TYPE II AB.
2. CONSTRUCT 3" AC OVER 4" TYPE II AB OVER 6" TYPE I AB 95% COMPACTION.
3. CONSTRUCT 24" L TYPE CURB AND GUTTER PER SUMMERLIN STD DWG NO. S-47.
4. CONSTRUCT WALL OPENING PER DETAIL 3 ON SHEET D2.
5. SAWCUT.
6. MATCH EXISTING.
7. ADJUST TO GRADE.
8. PROTECT IN PLACE.
9. TRENCH AND PAVEMENT RESTORATION PER USDOCA DWG NO. 503 AND 500.3.
10. TRENCH AND PAVEMENT RESTORATION PER USDOCA DWG NO. 503 AND 500.4.
11. CONSTRUCT CONCRETE CUT-OFF WALL PER DETAIL 5 ON SHEET D2, H=18".
12. CONSTRUCT CONCRETE CUT-OFF WALL PER DETAIL 6 ON SHEET D2, H=36".
13. CONSTRUCT WALL OPENING PER DETAIL 4 ON SHEET D2.
14. CONSTRUCT 5' WIDE CONCRETE CROSS CUTTER PER DETAIL 7 ON SHEET D2.
15. CONSTRUCT CURB OPENING PER DETAIL 8 ON SHEET D2.

NOTE: SEE SHEET C2, C3 & C4 FOR ABBREVIATIONS AND QUANTITIES

LEGEND

- H=18" CONCRETE CUT-OFF WALL
- H=36" CONCRETE CUT-OFF WALL

STORMWATER MANAGEMENT NOTES - CITY OF LAS VEGAS

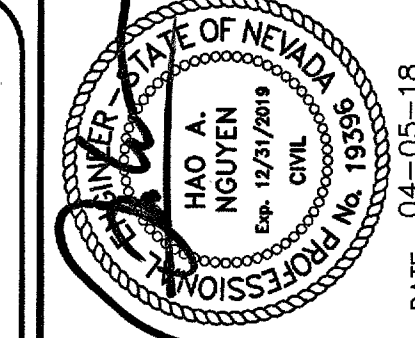
1. STANDARD NOTE NO. 1: THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. STANDARD NOTE NO. 2: ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. STANDARD NOTE NO. 3: TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 10000, SECTION III.A.5.
4. STANDARD NOTE NO. 4: AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 10000, SECTION III.A.12.
5. STANDARD NOTE NO. 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.

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY 49249 ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

HAO A. NGUYEN P.E. 19396
DATE 04-05-18

L# 17-01670 CLV DWG# 107Y5070



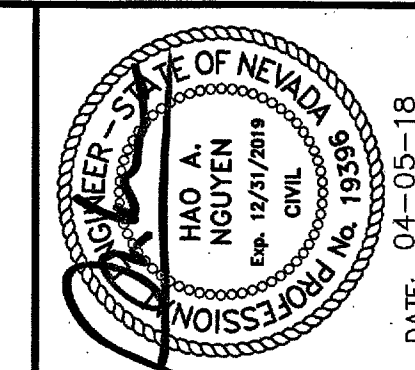
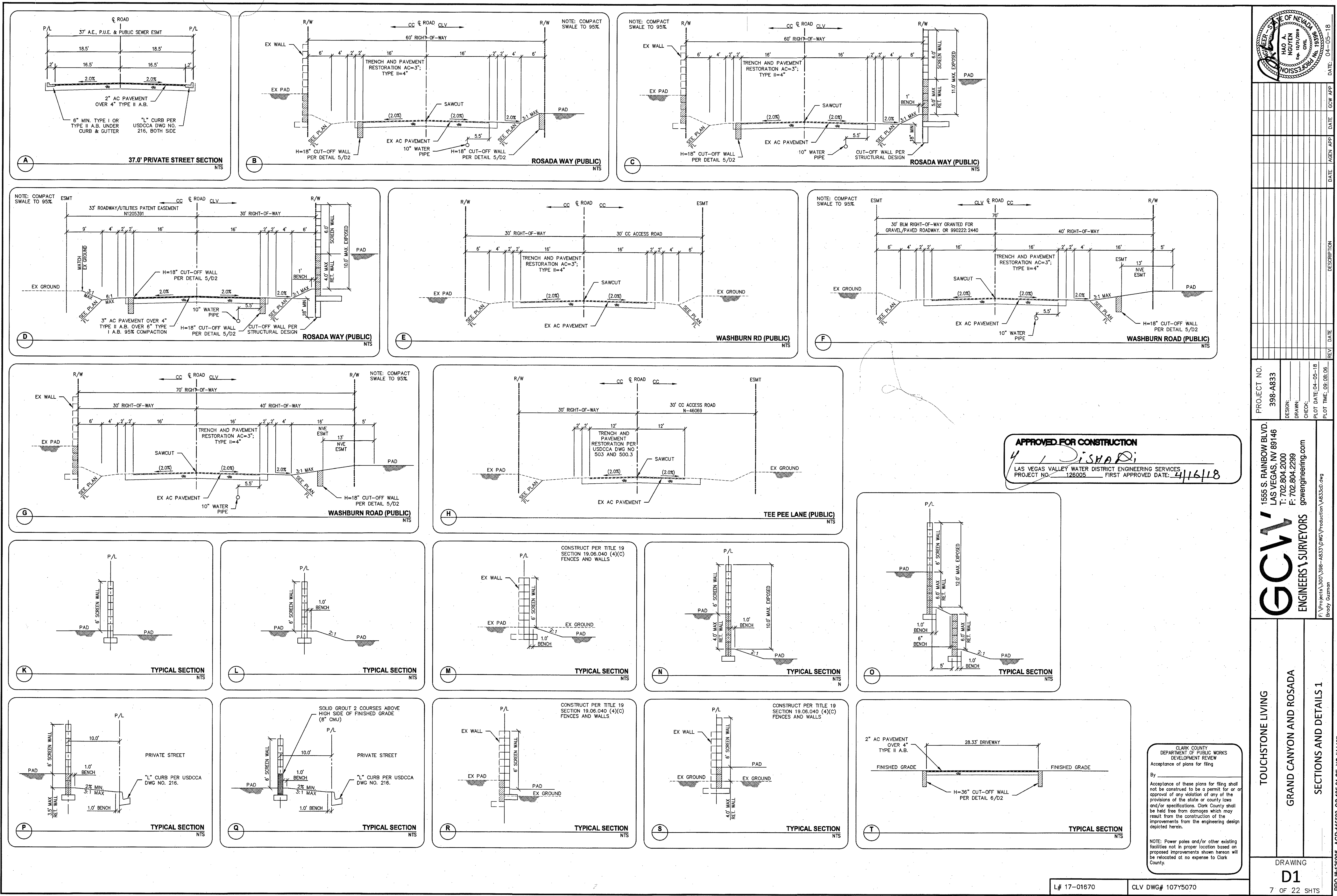
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DESIGN	1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146
DRAWN	T: 702.804.2000 F: 702.804.2299
CHECK	gcwengineering.com
DATE	04-05-18
REV	09-07-54

PROJECT NO. 398-A833
DESIGN: 1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

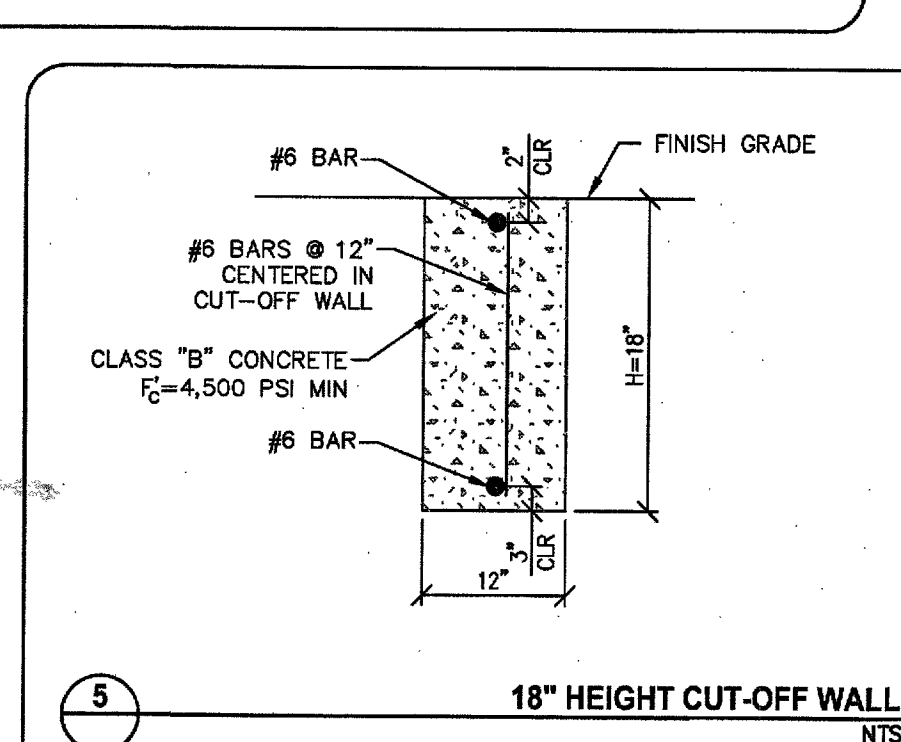
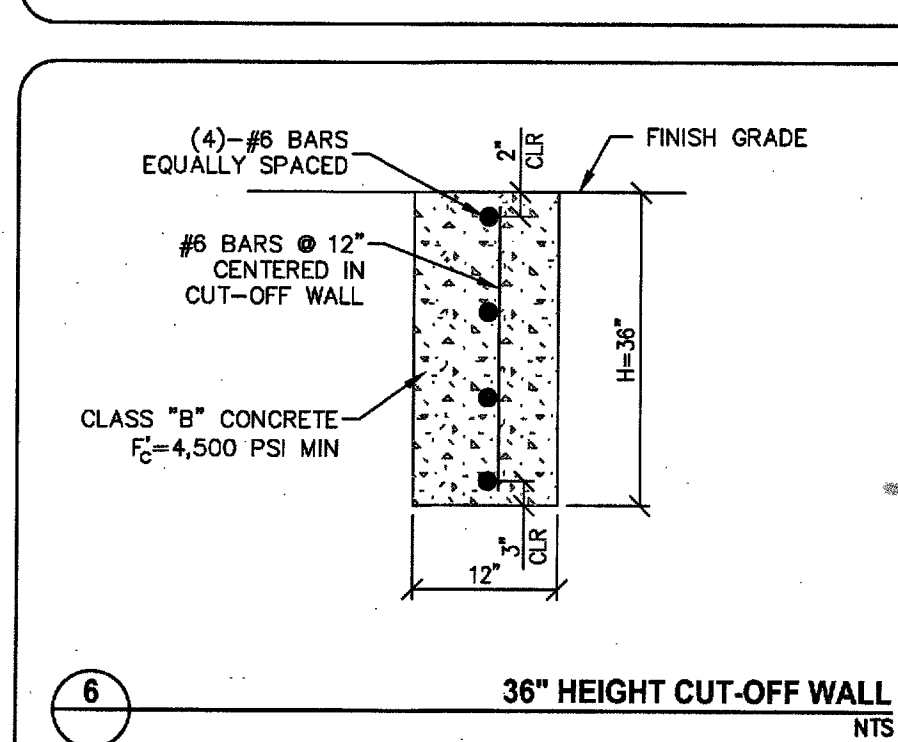
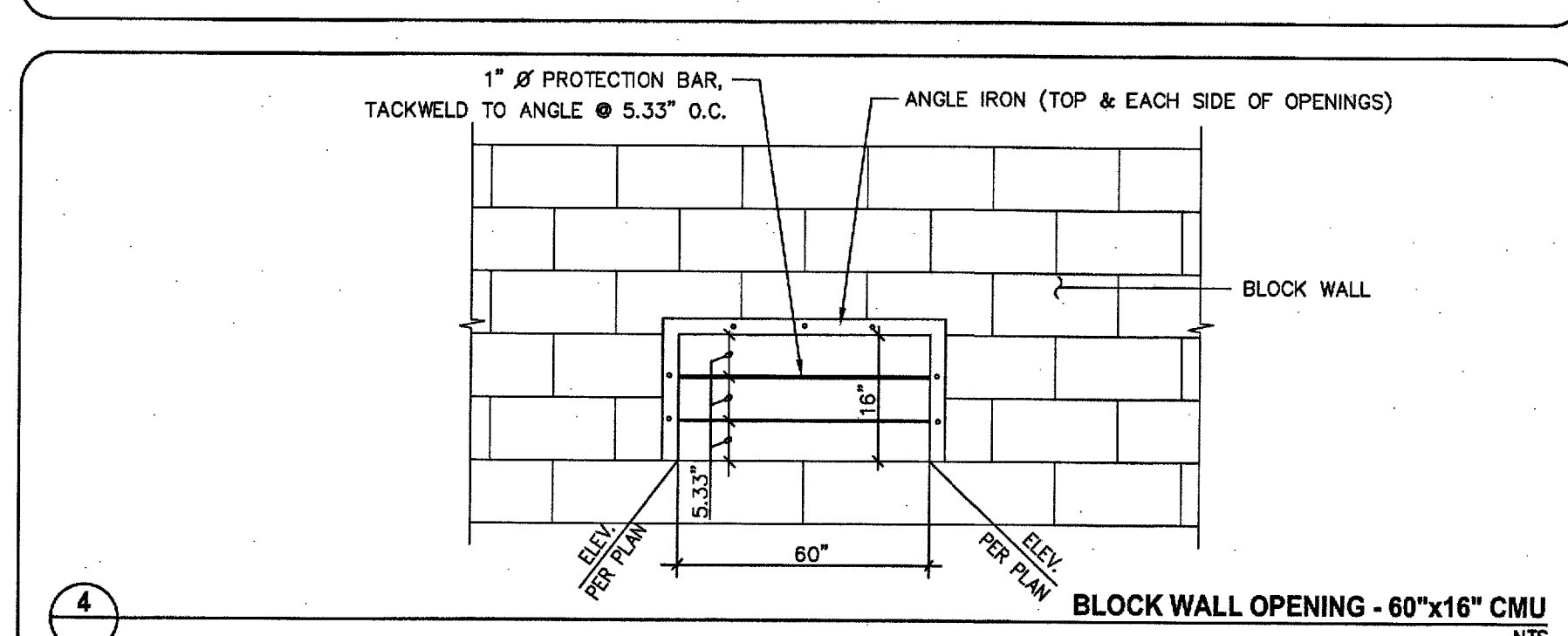
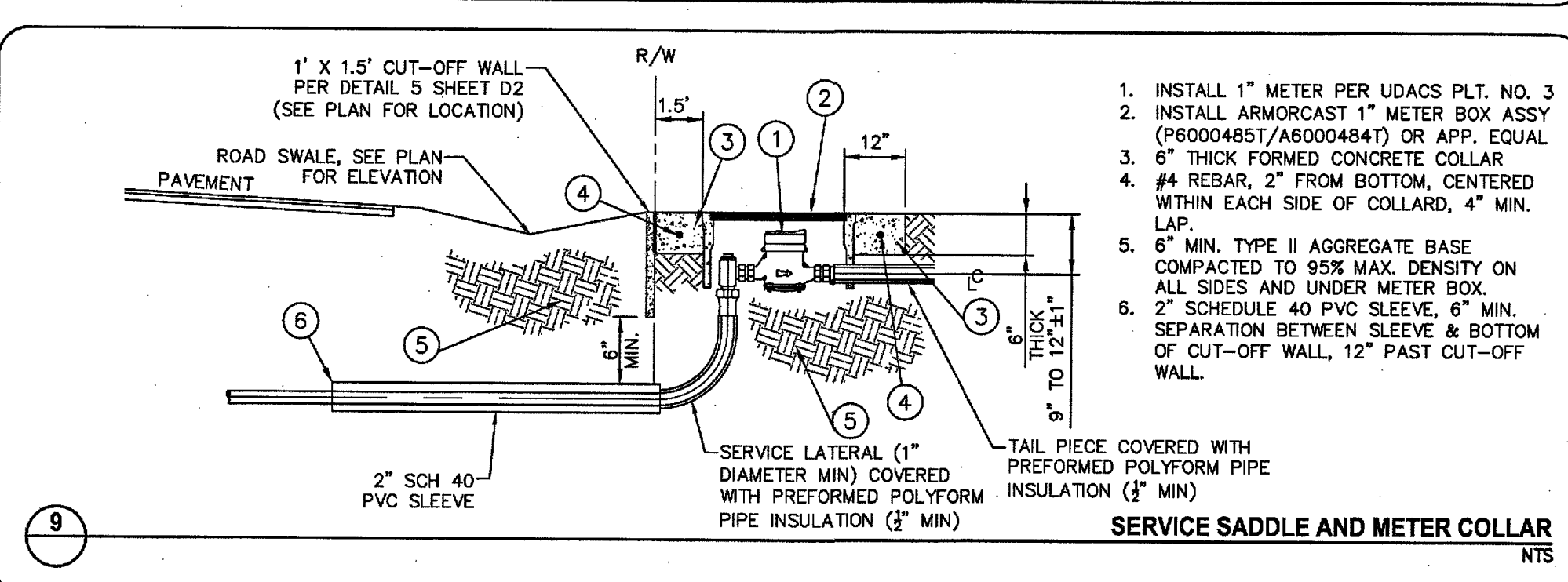
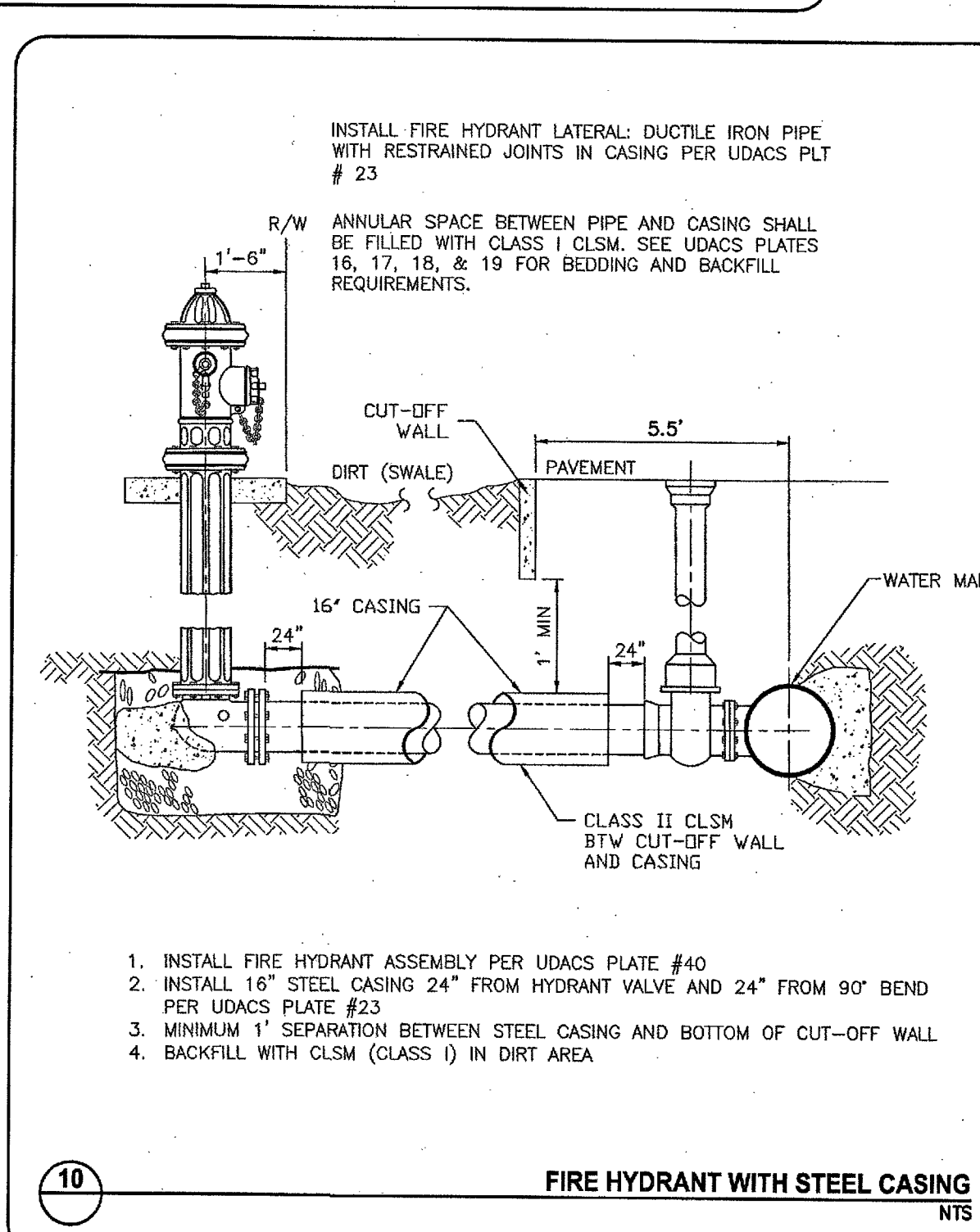
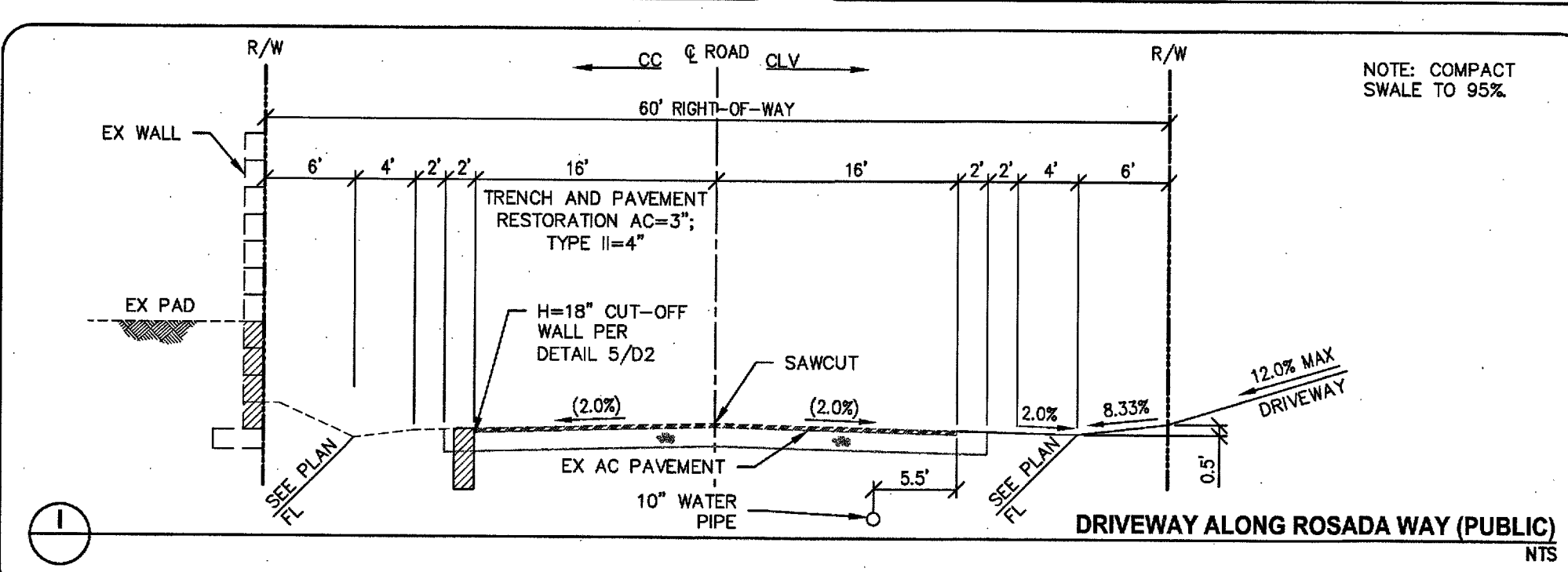
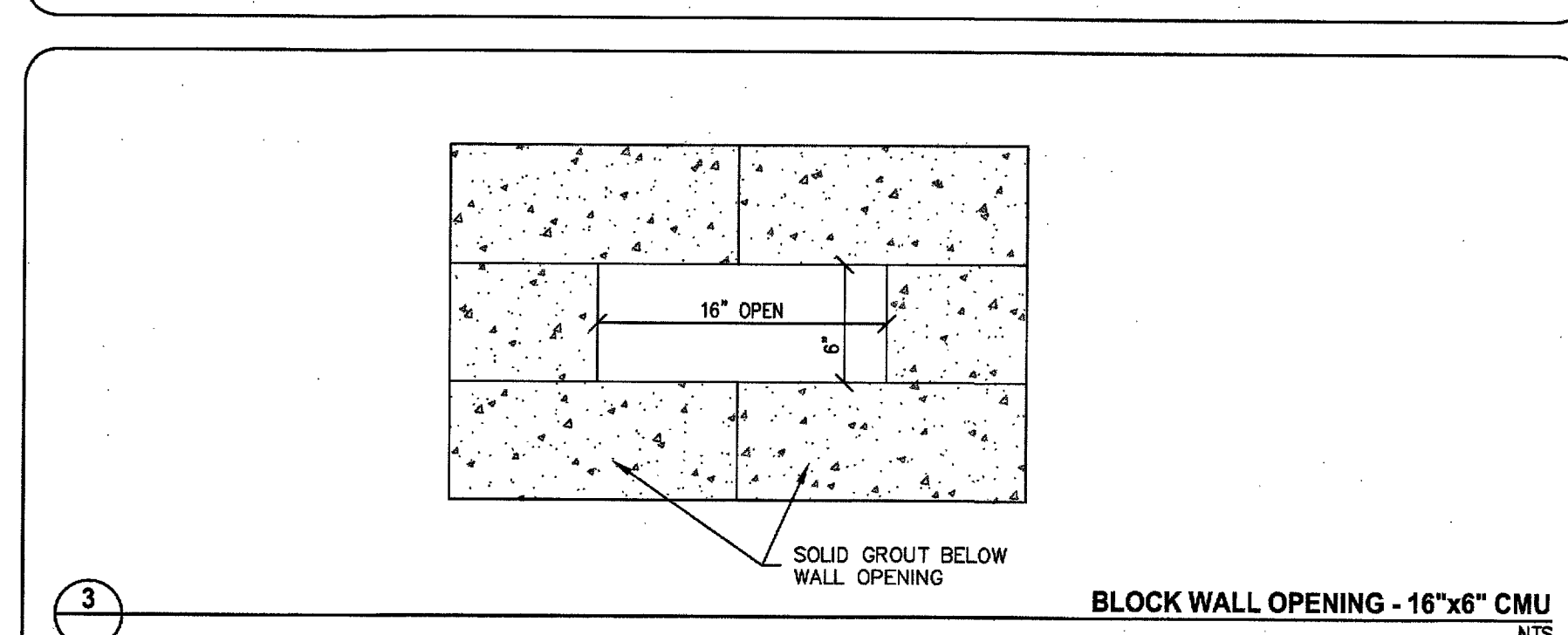
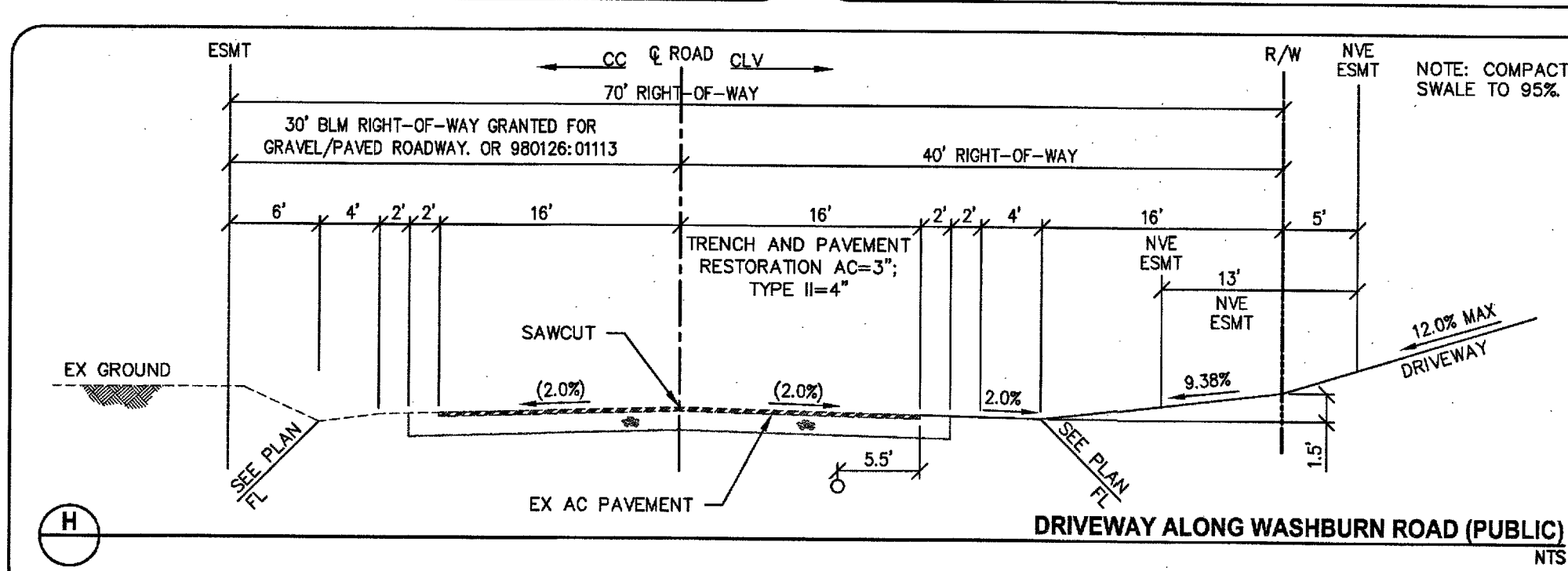
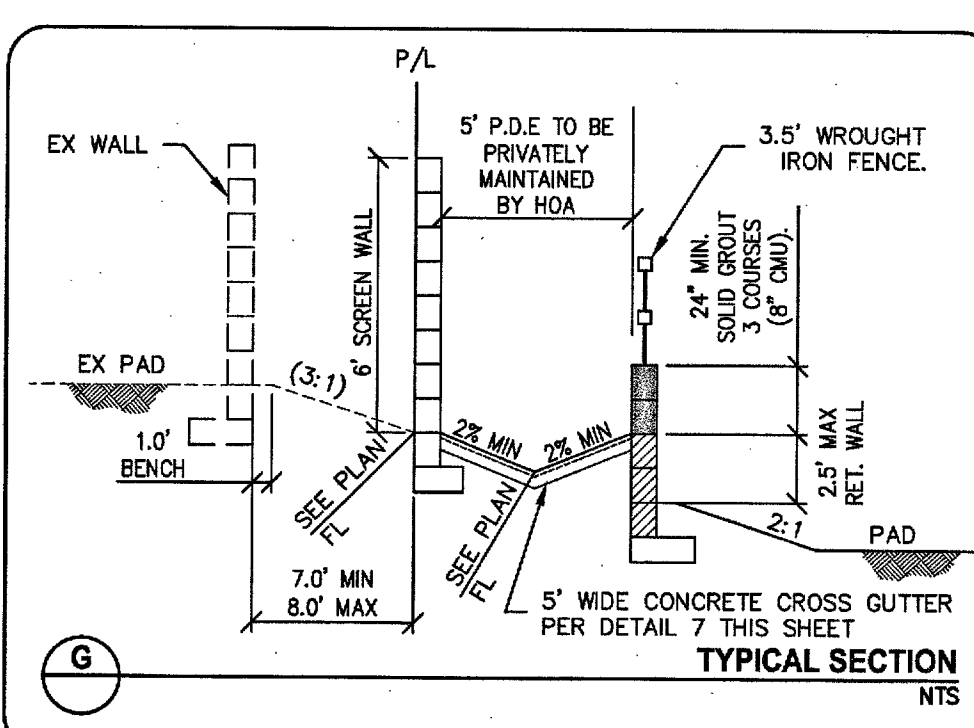
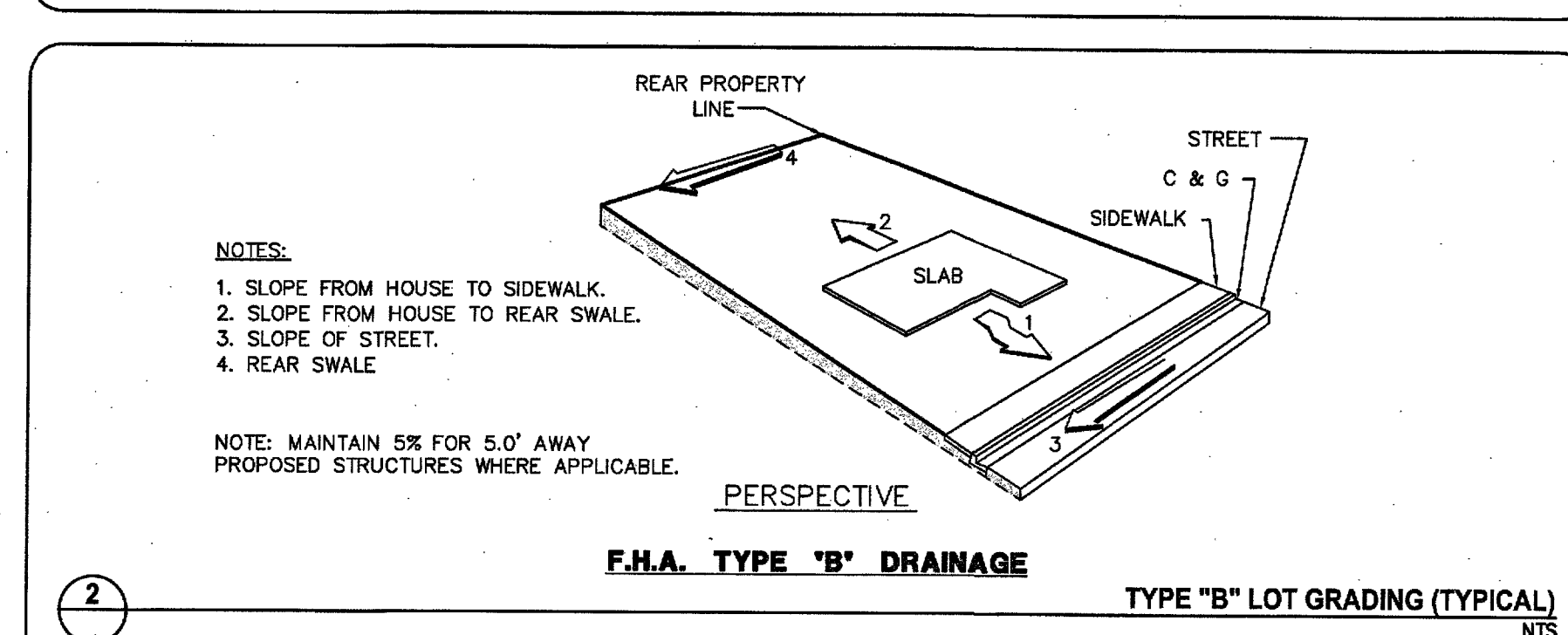
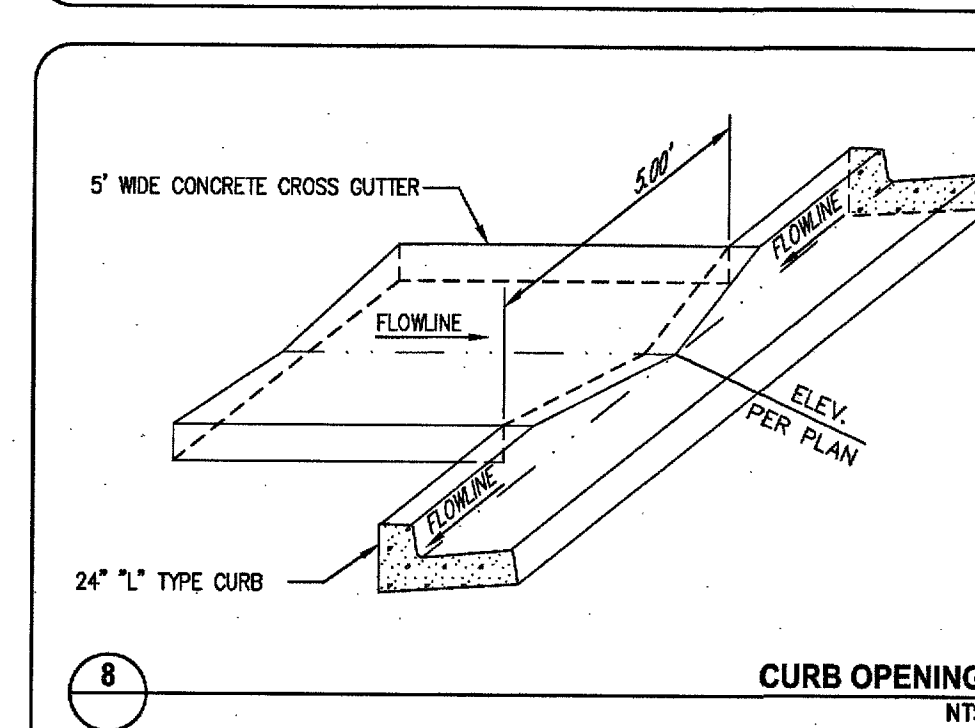
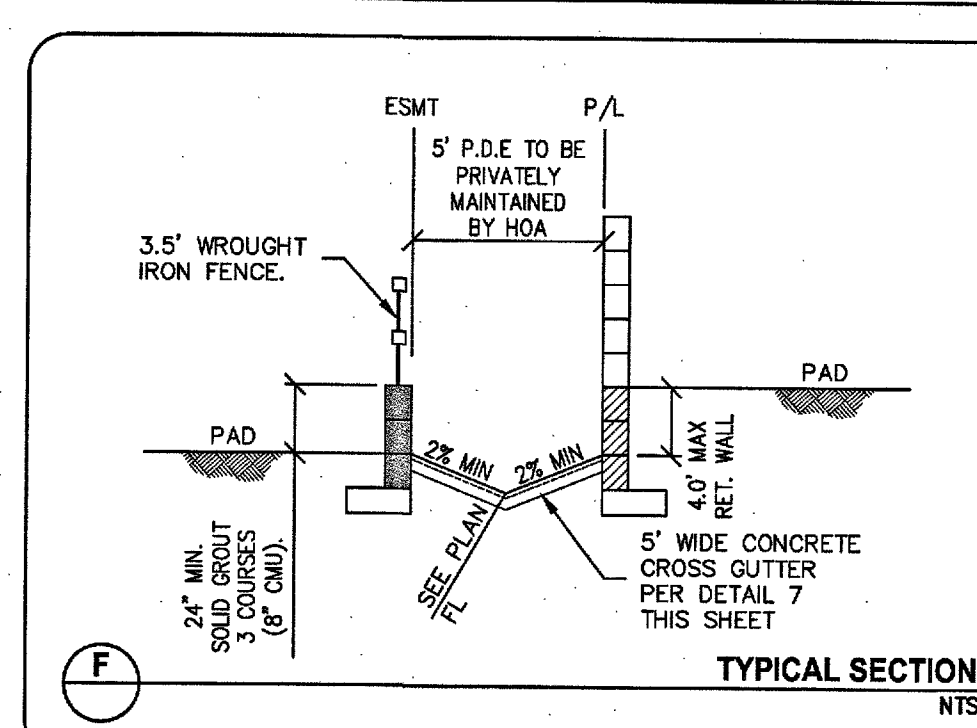
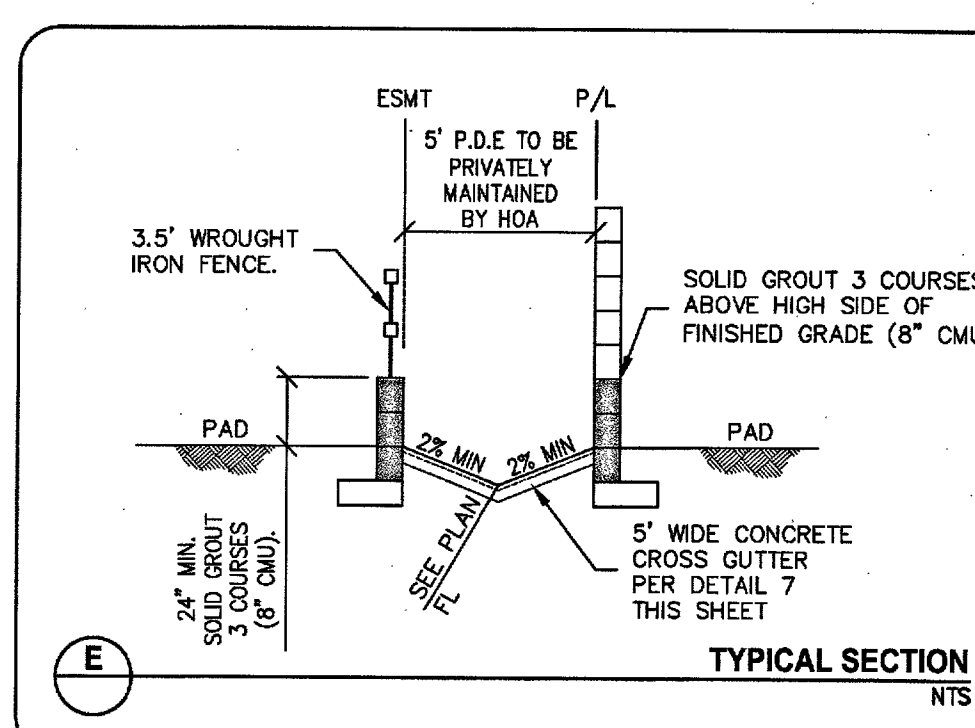
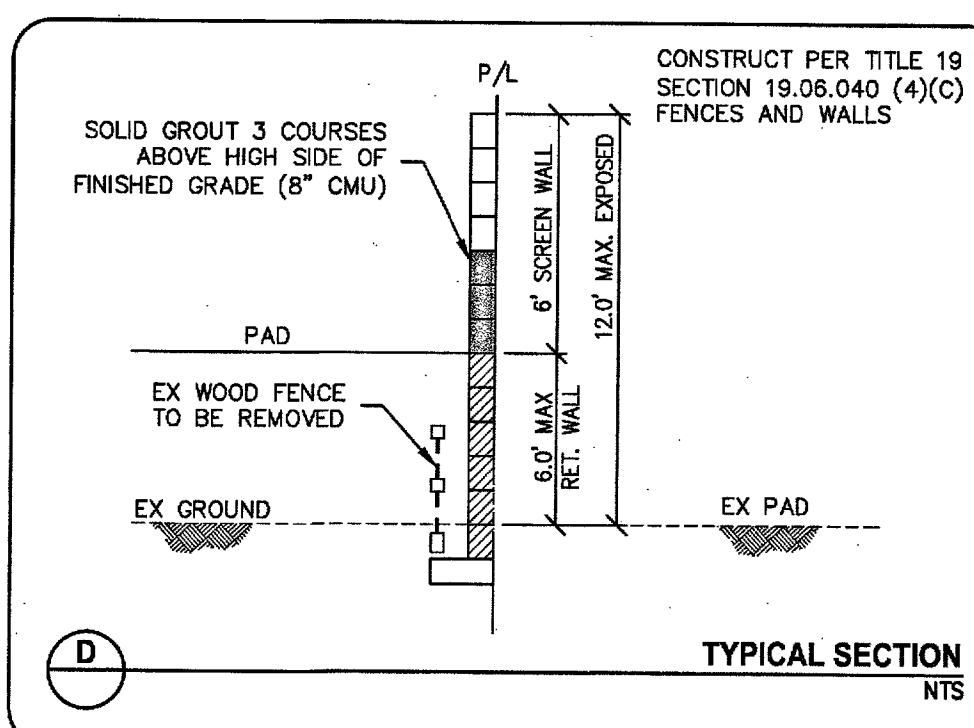
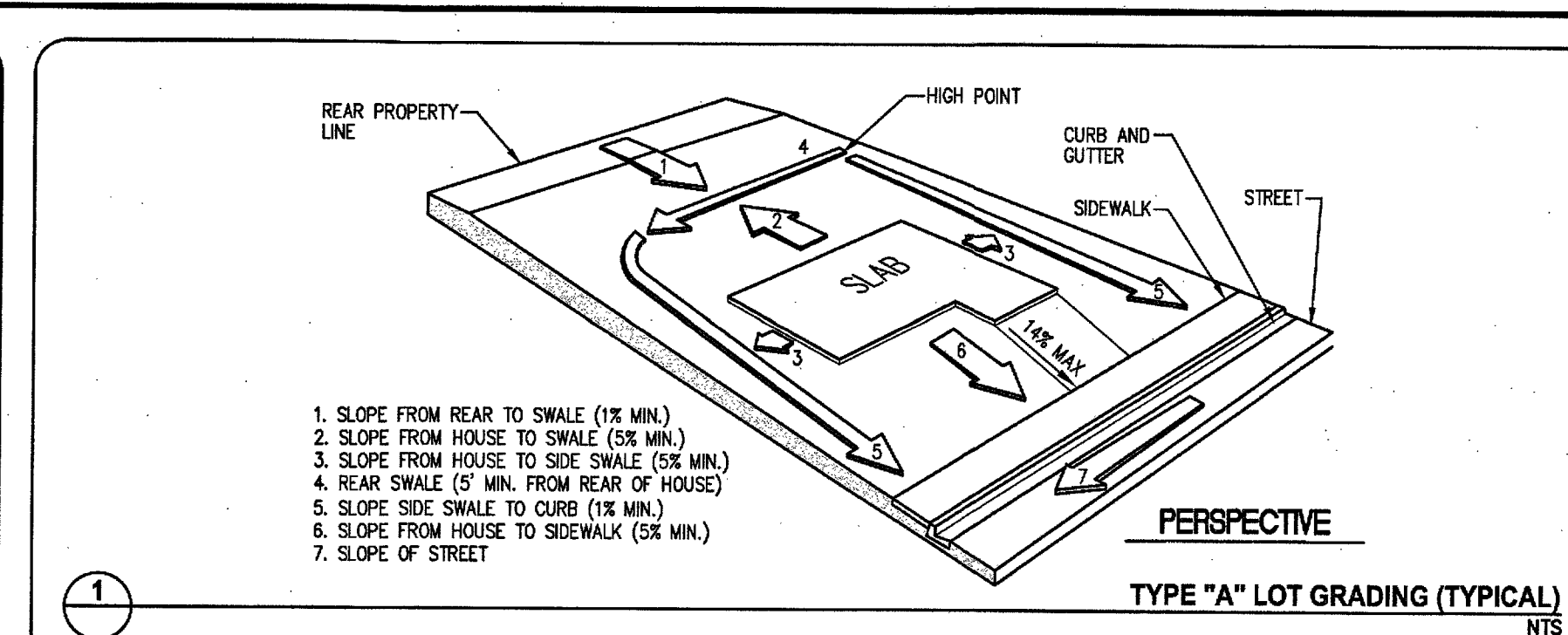
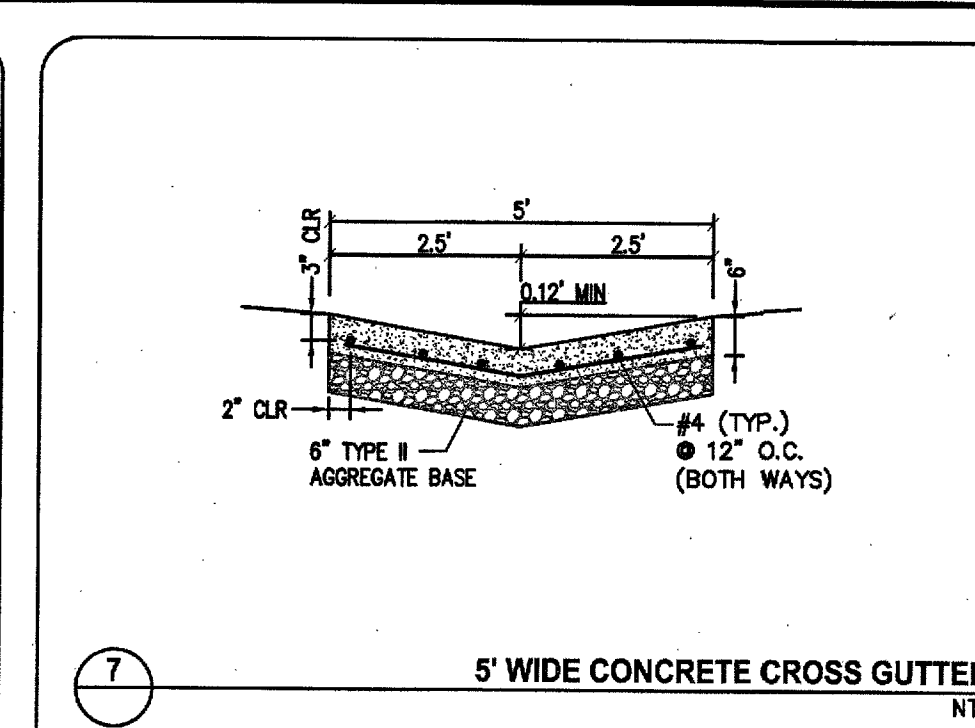
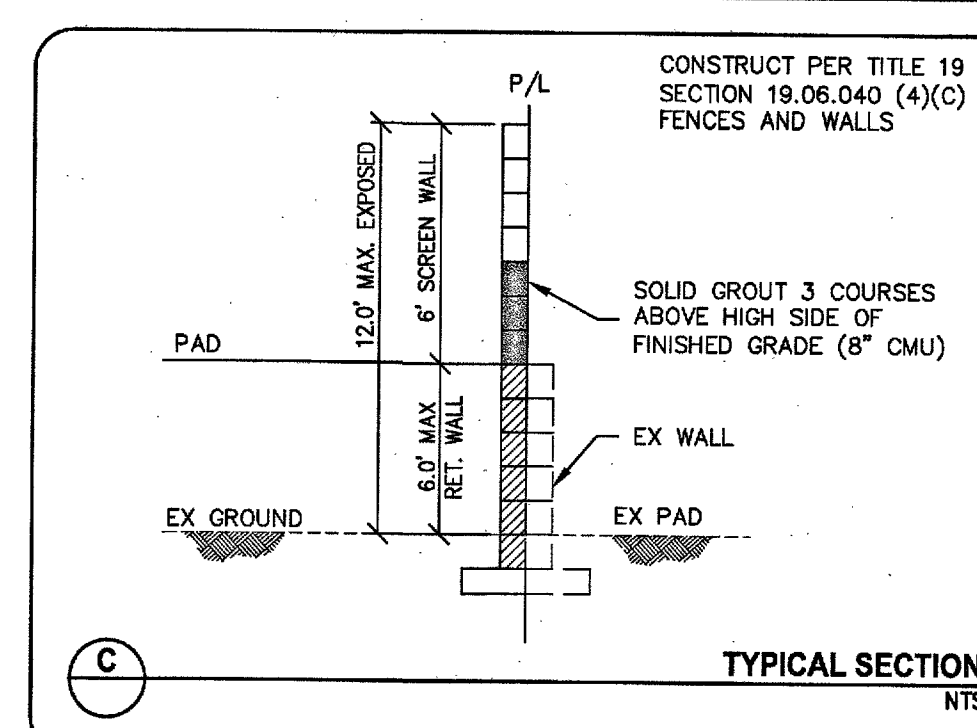
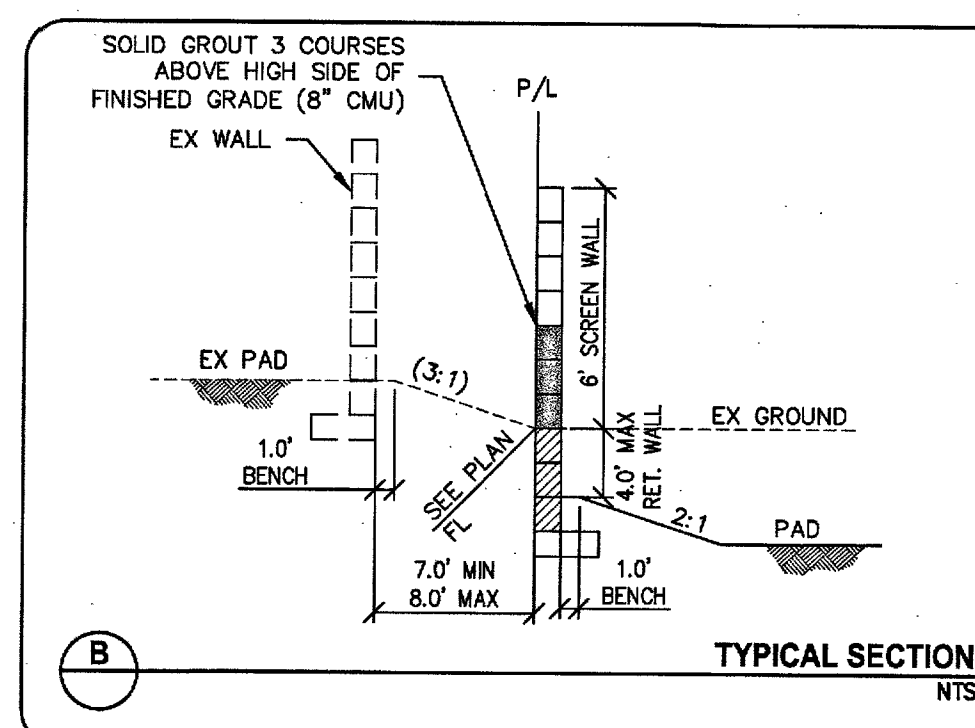
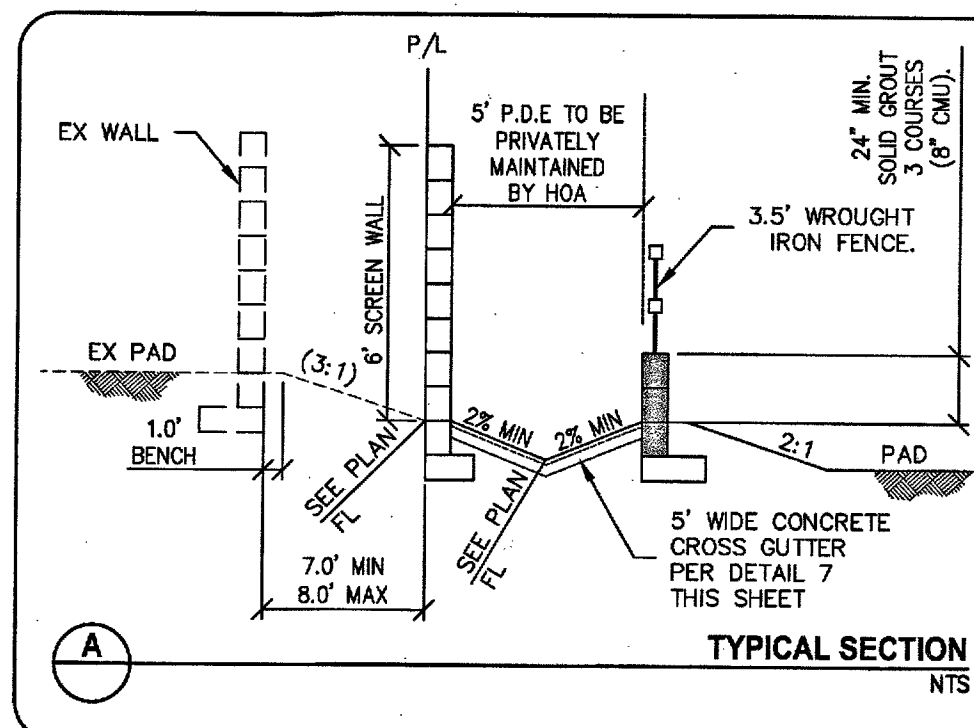
GCW' ENGINEERS & SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

TOUCHSTONE LIVING
GRAND CANYON AND ROSADA
GRADING PLAN 1
DRAWING G1
5 OF 22 SHTS

HTE:



PROJ# 126005 AGR 116383 QS 125-31-SE XC#11437



CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT REVIEW

Acceptance of plans for filing

By _____

Acceptance of these plans for filing shall not be construed to be a permit for or a approval of any violation of any of the provisions of the state or county laws and/or specifications. Clark County shall be held free from damages which may result from the construction of the improvements from the engineering design depicted herein.

NOTE: Power poles and/or other existing facilities not in proper location based on proposed improvements shown hereon will be relocated at no expense to Clark County.

APPROVED FOR CONSTRUCTION

4 / ISHADI
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18

L# 17-01670

CLV DWG# 107Y5070

HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
PROFESSIONAL ENGINEER
STATE OF NEVADA
No. 19339

DATE: 04-05-18

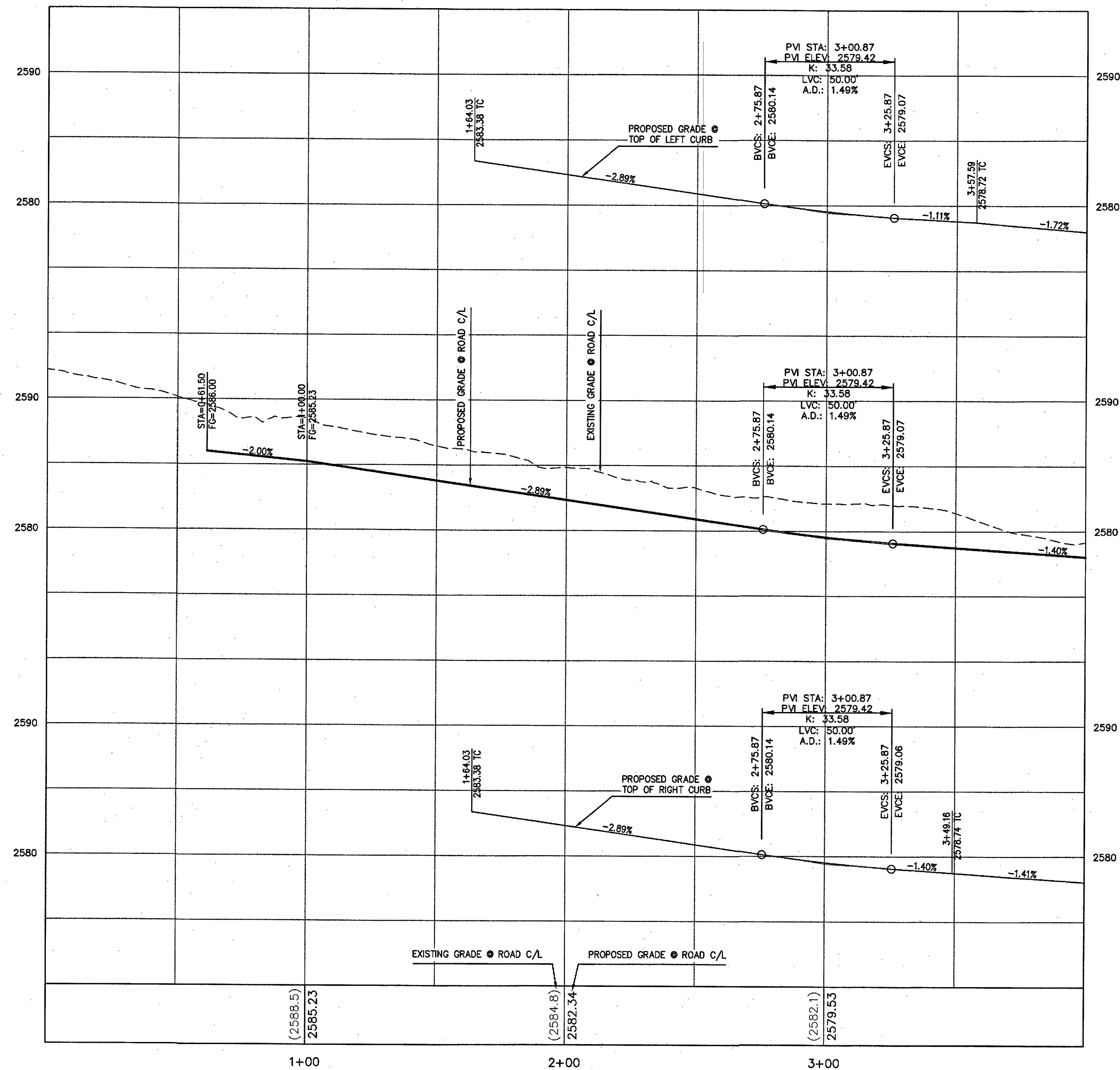
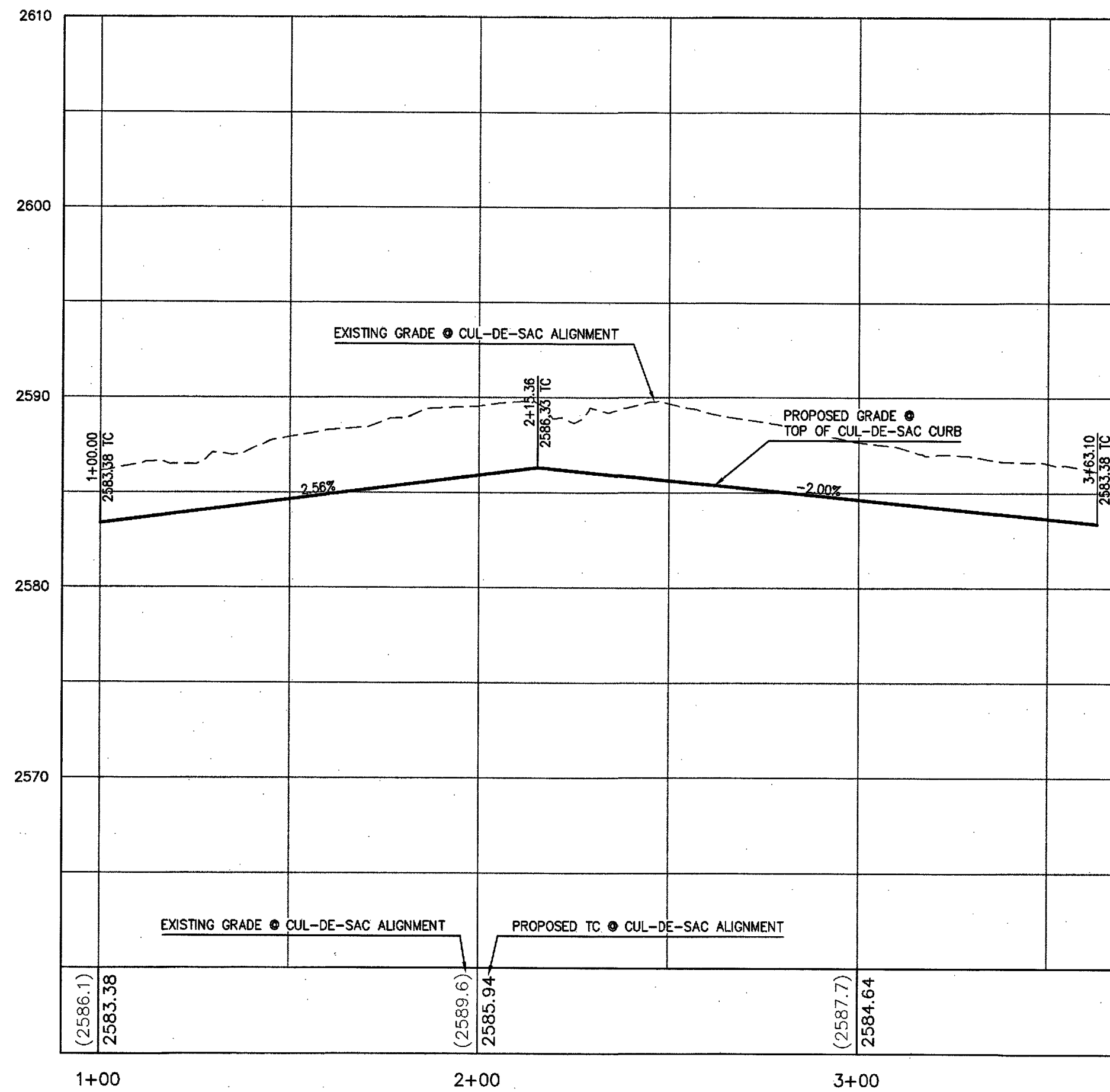
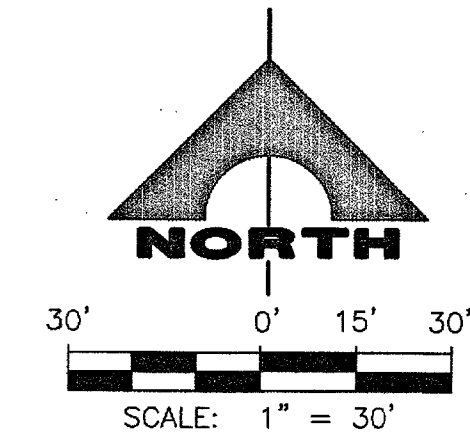
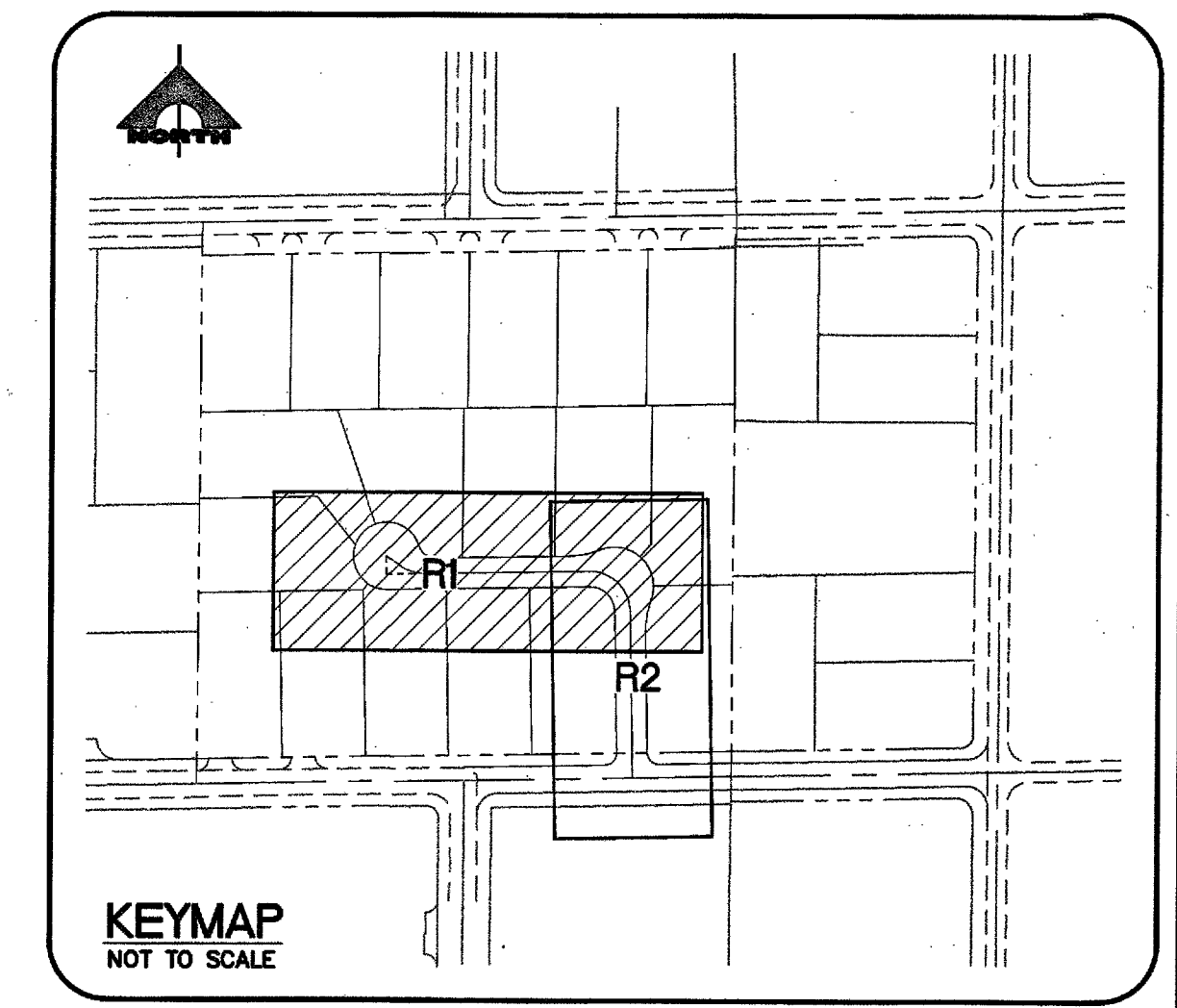
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 ENGINEERS' SURVEYORS	1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gowengineering.com		PROJECT NO. 398-A833
	DESIGN:		
	DRAWN:		
	CHECK:		
PLOT DATE: 04-05-18 PLOT TIME: 09:08:08			

TOUCHSTONE LIVING	
IND CANYON AND ROSADA	
SECTIONS AND DETAILS 2	

GRA	S
DRAWING	
D2	
8 OF 22 SHTS	

PROJ#:126005 AGR:116583 QS:125-31-SE XC:#11437



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**FREEWAY AND ARTERIAL
SYSTEM OF TRANSPORTATION**

STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2018
CIVIL
PROFESSIONAL No. 19333

DATE: 04-05-18

[illegible]

SIGN: _____
DRAWN: _____
CHECK: _____
OT DATE: 04-05-18

\\A833cR.dwg

GCT
ENGINEERS & SURVEYORS

Journal of Management Inquiry 22(4)

GRAND CANYON AND ROSADA

STAR VISTA CI ROADWAY PLAN AND PROFILE

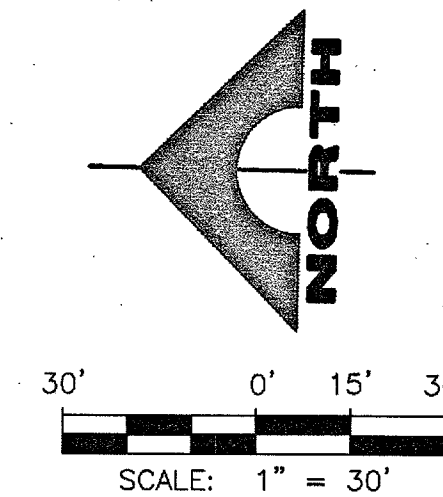
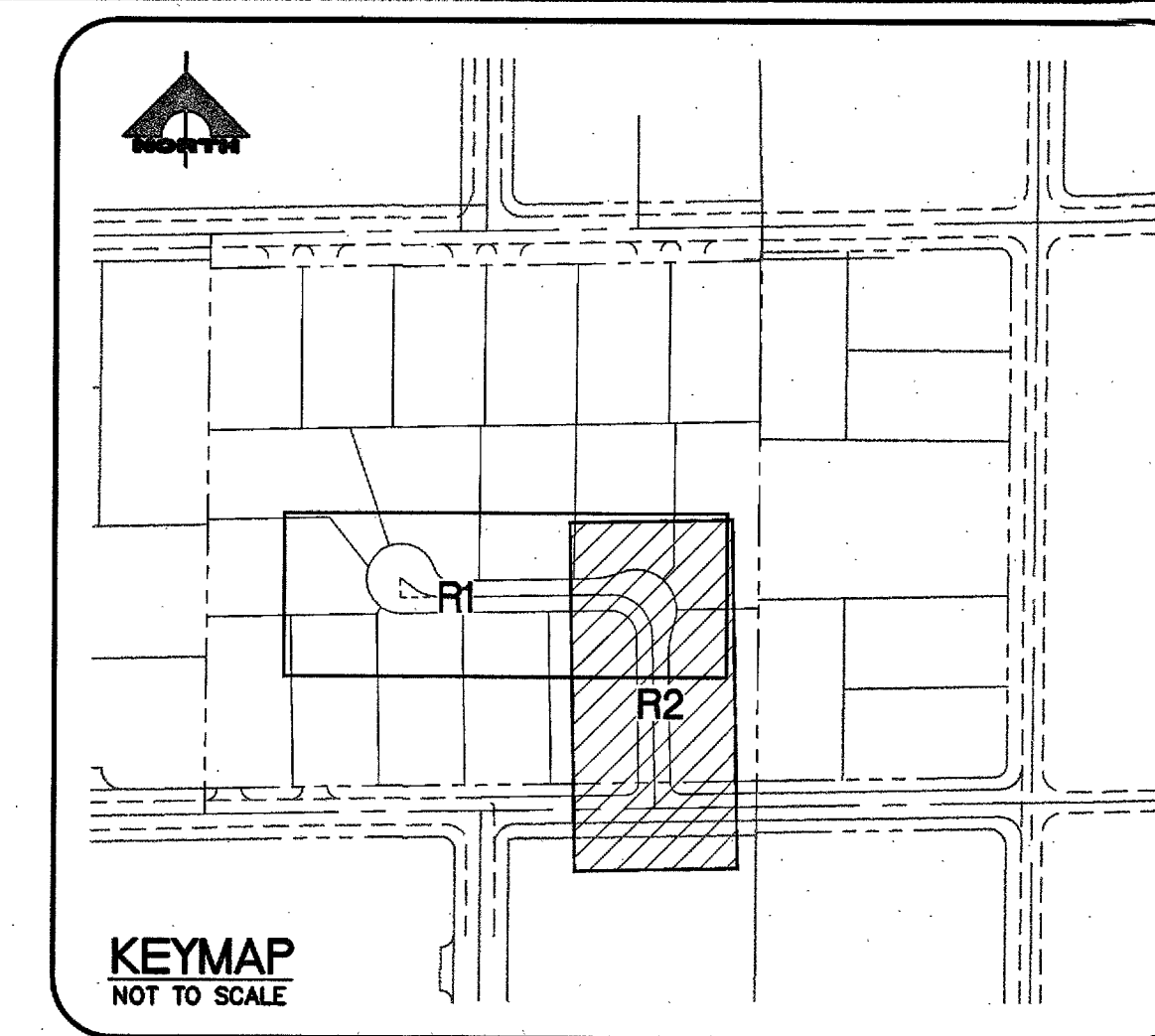
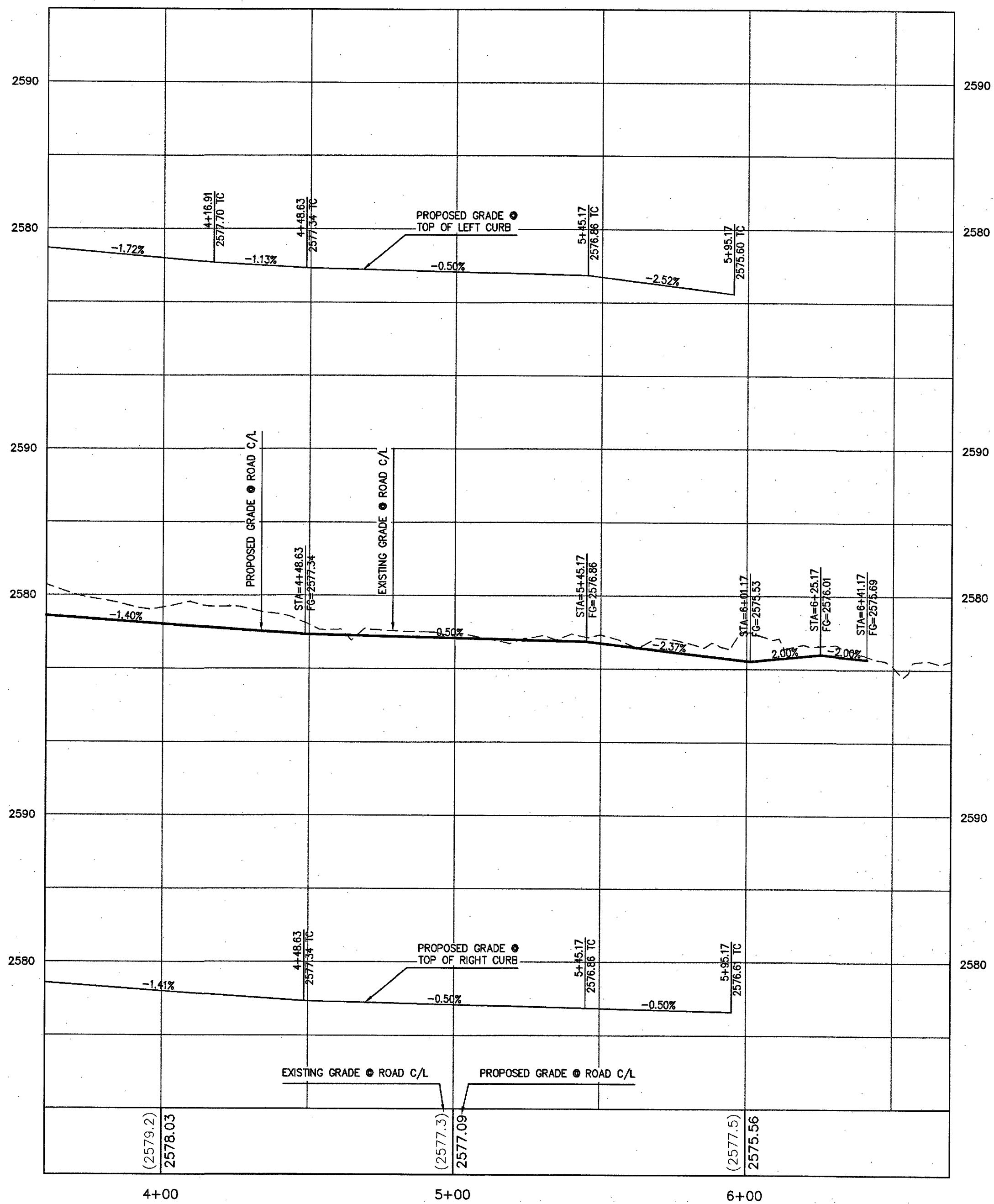
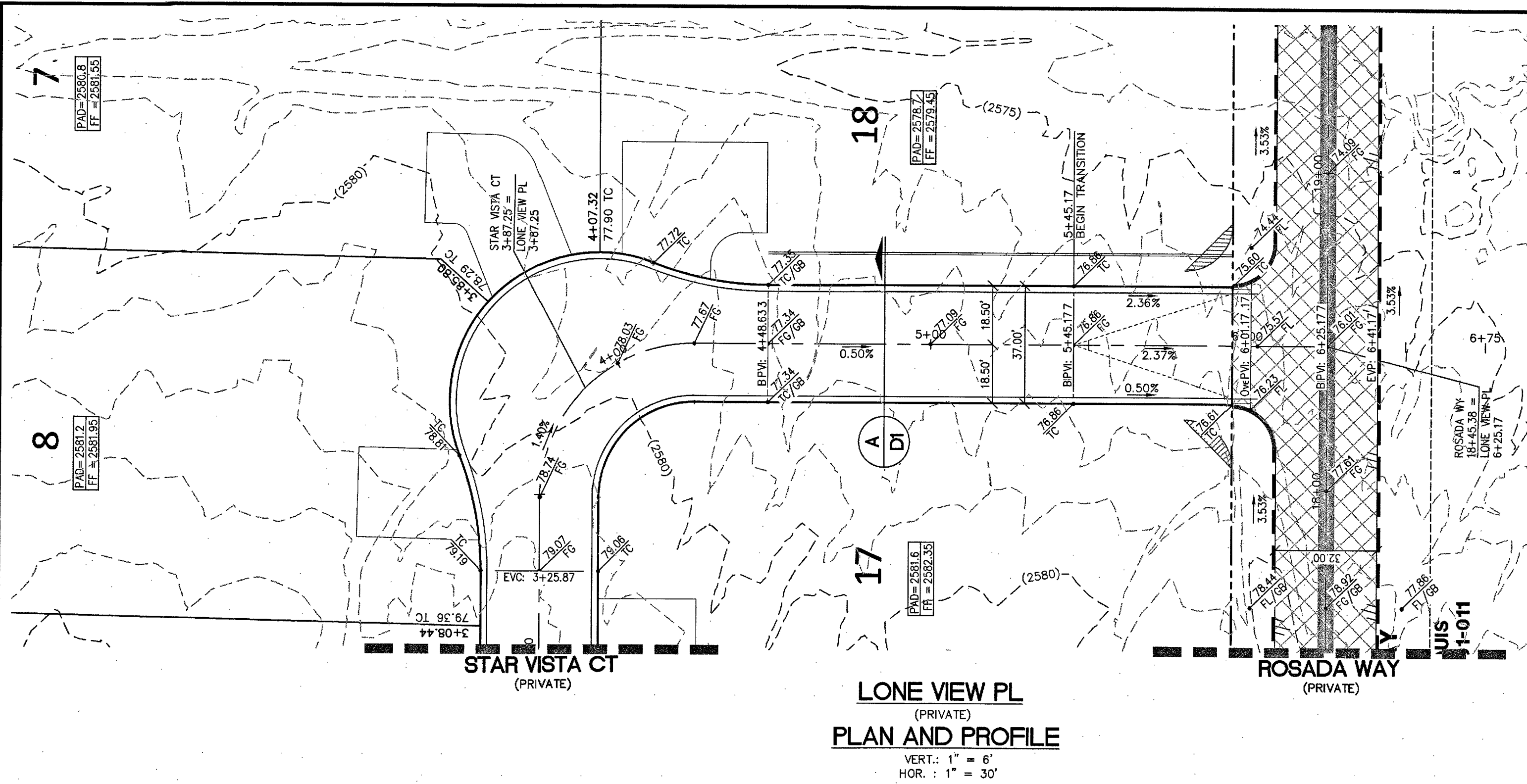
DRAWING

R1

OF 22 SHTS

L# 17-01670

CLV DWG# 107Y5070



NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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.

NOTE

ALL ON-SITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.
 ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

BASIS OF BEARING

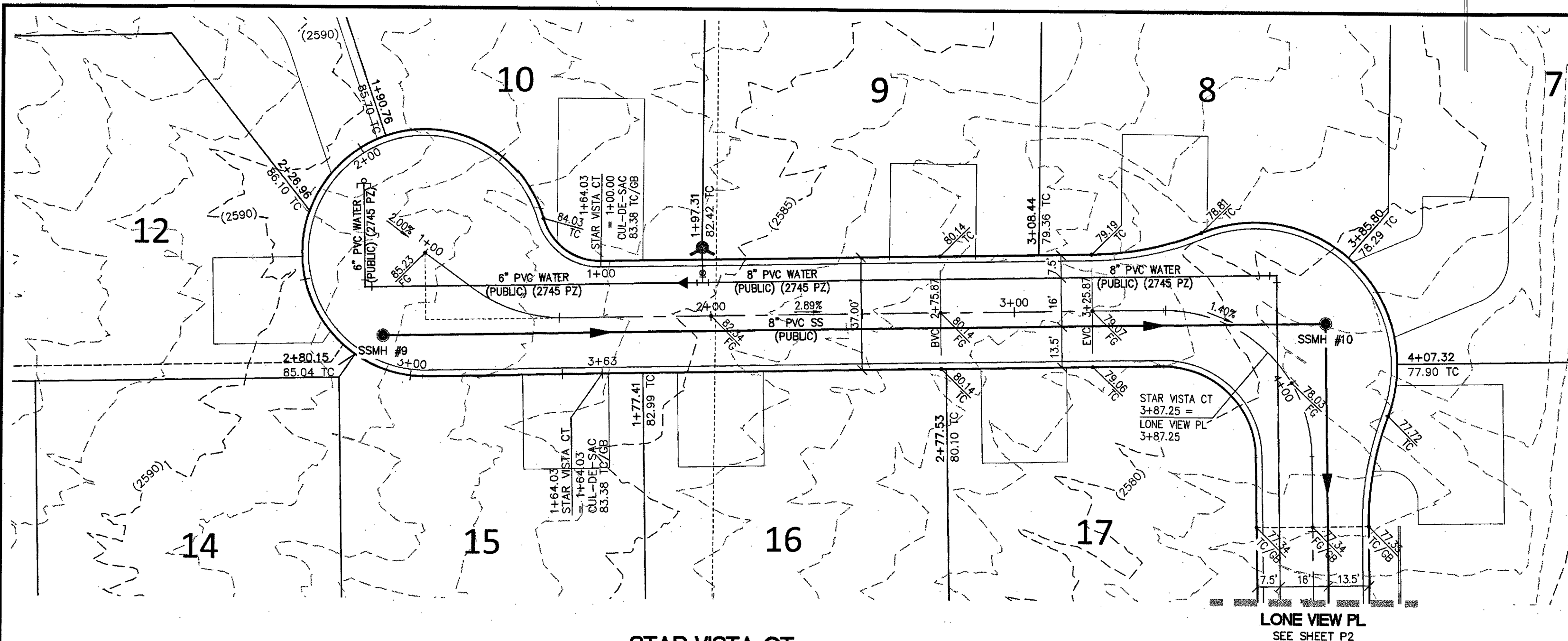
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BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT BLV9936NEE8, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.
 ELEVATION: 2715.84 (FEET)
 827.790 (METERS)
 CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

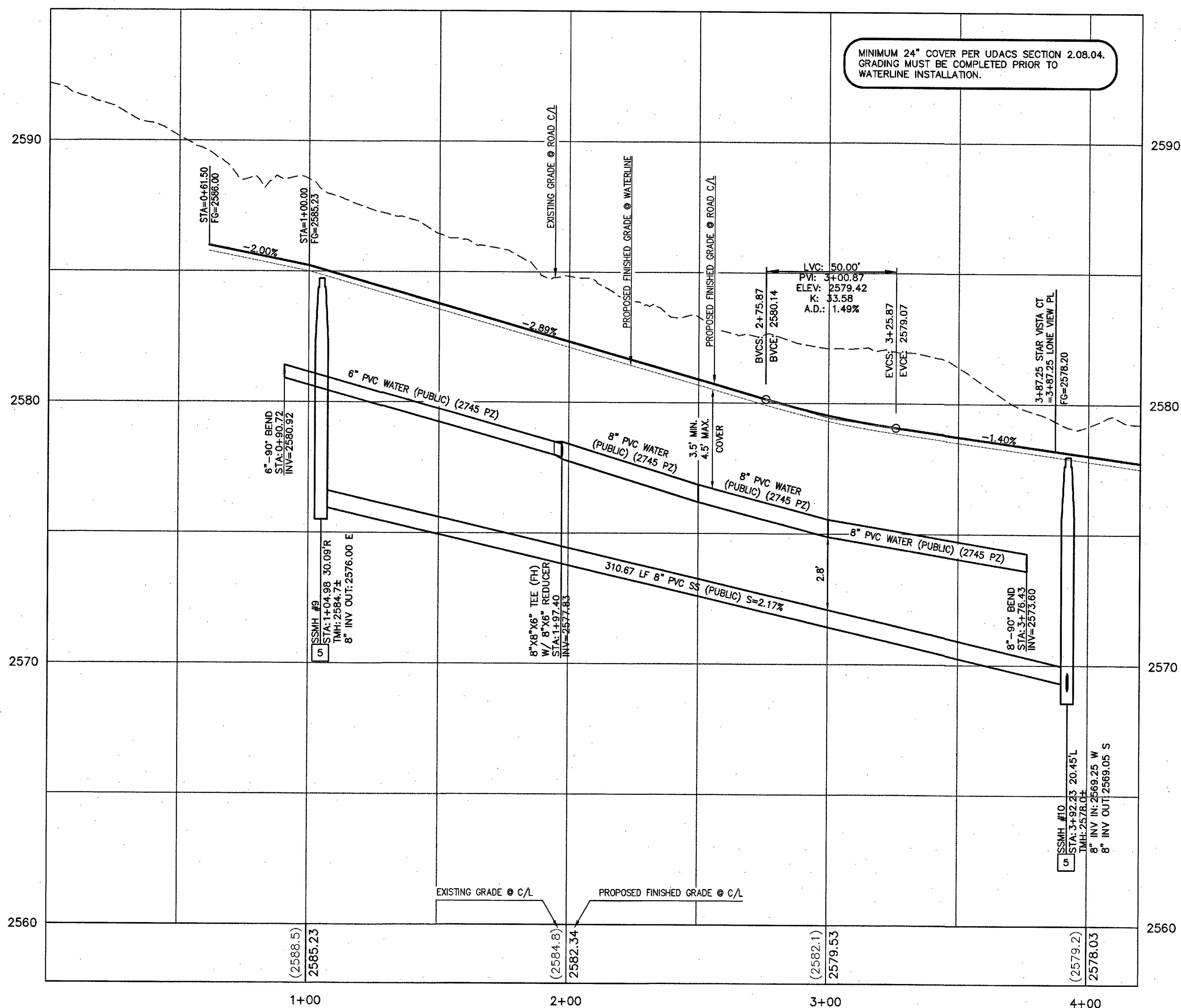


		PROJECT NO. 398-A833	DESIGN: DRAWN: CHECK: PLOT DATE: 04-05-18 PLOT TIME: 09:08:31	DATE 04-05-18
TOUCHSTONE LIVING GRAND CANYON AND ROSADA LONE VIEW PL ROADWAY PLAN AND PROFILE		1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gowengineering.com		
DRAWING R2 10 OF 22 SHTS		F:\Projects\300\398-A833\DWG\Production\A833-R.dwg Brady Gorman		

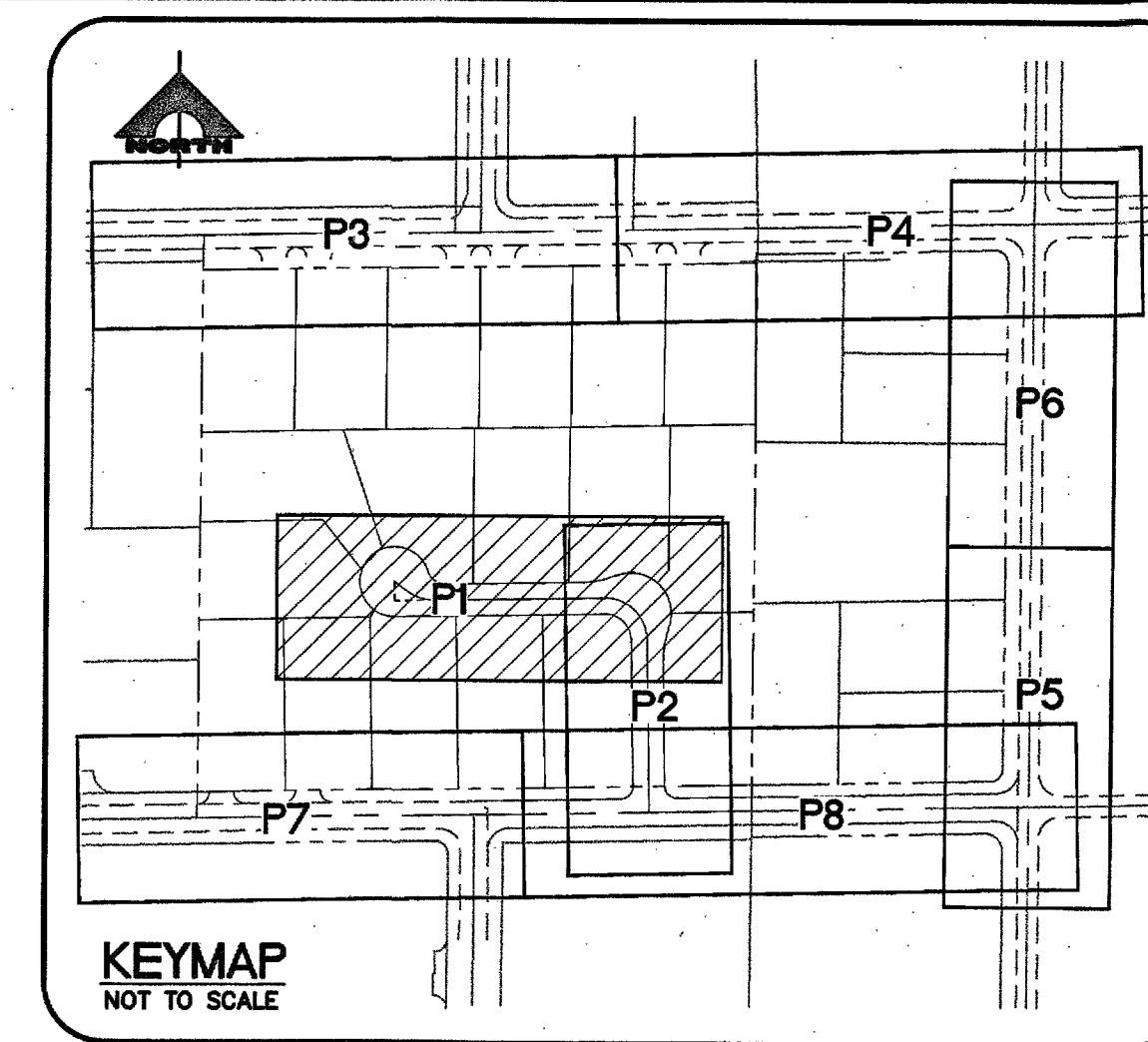


STAR VISTA CT
(PRIVATE)
PLAN AND PROFILE

HORIZ. 1" = 30'
VERT. 1" = 3'



MINIMUM 24" COVER PER UDACS SECTION 2.08.04.
GRADING MUST BE COMPLETED PRIOR TO
WATERLINE INSTALLATION.



30' 0' 15' 30'
SCALE: 1" = 30'

SEWER NOTE:
ALT "A" TO BE CONSTRUCTED
ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID PER DCSWCS SD-1A.
- INSTALL 72" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8.
- INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8.

NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04.
GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE:

- INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
- ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

WATER MAIN JOINT DEFLECTION (PVC 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

NOTE TO CONTRACTOR

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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.
- LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
- CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

BASIS OF BEARING

NORTH 88°54'00" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN FILE 197, PAGE 2 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.
ELEVATION: 2715.84 (FEET)
827.730 (METERS)
CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18

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CALL BEFORE YOU DIG
OVERHEAD
1-702-227-2929

L# 17-01670 CLV DWG# 107Y5070

PROJECT NO. 398-A833

DESIGN: 398-A833

DRAWN: 398-A833

CHECK: 398-A833

PLOT DATE: 04-05-18

PLOT TIME: 09:08:50

TOUCHSTONE LIVING

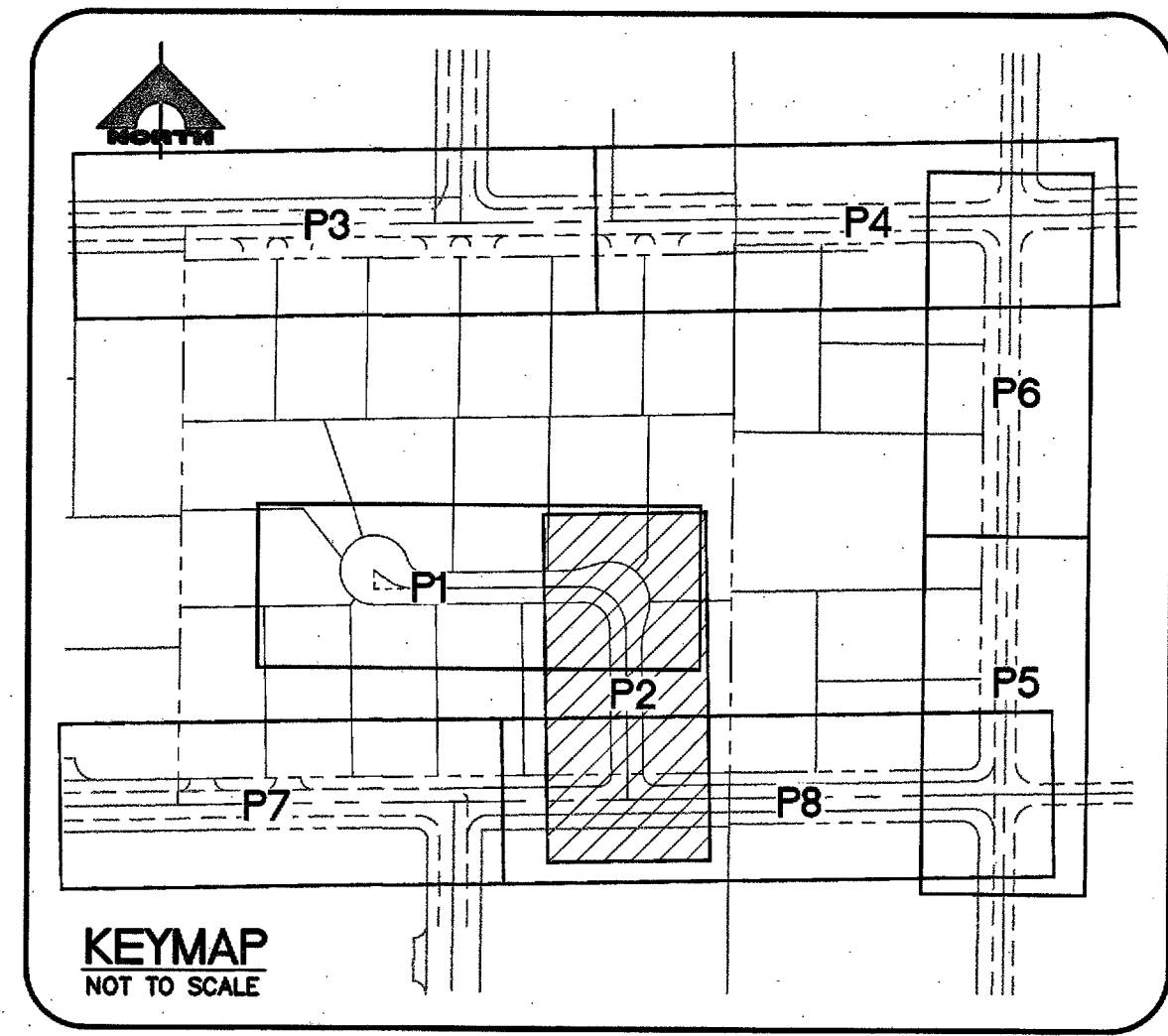
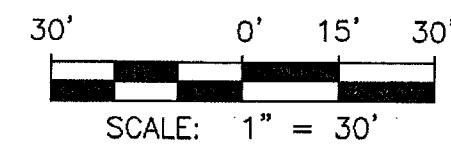
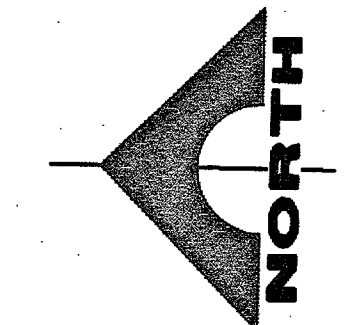
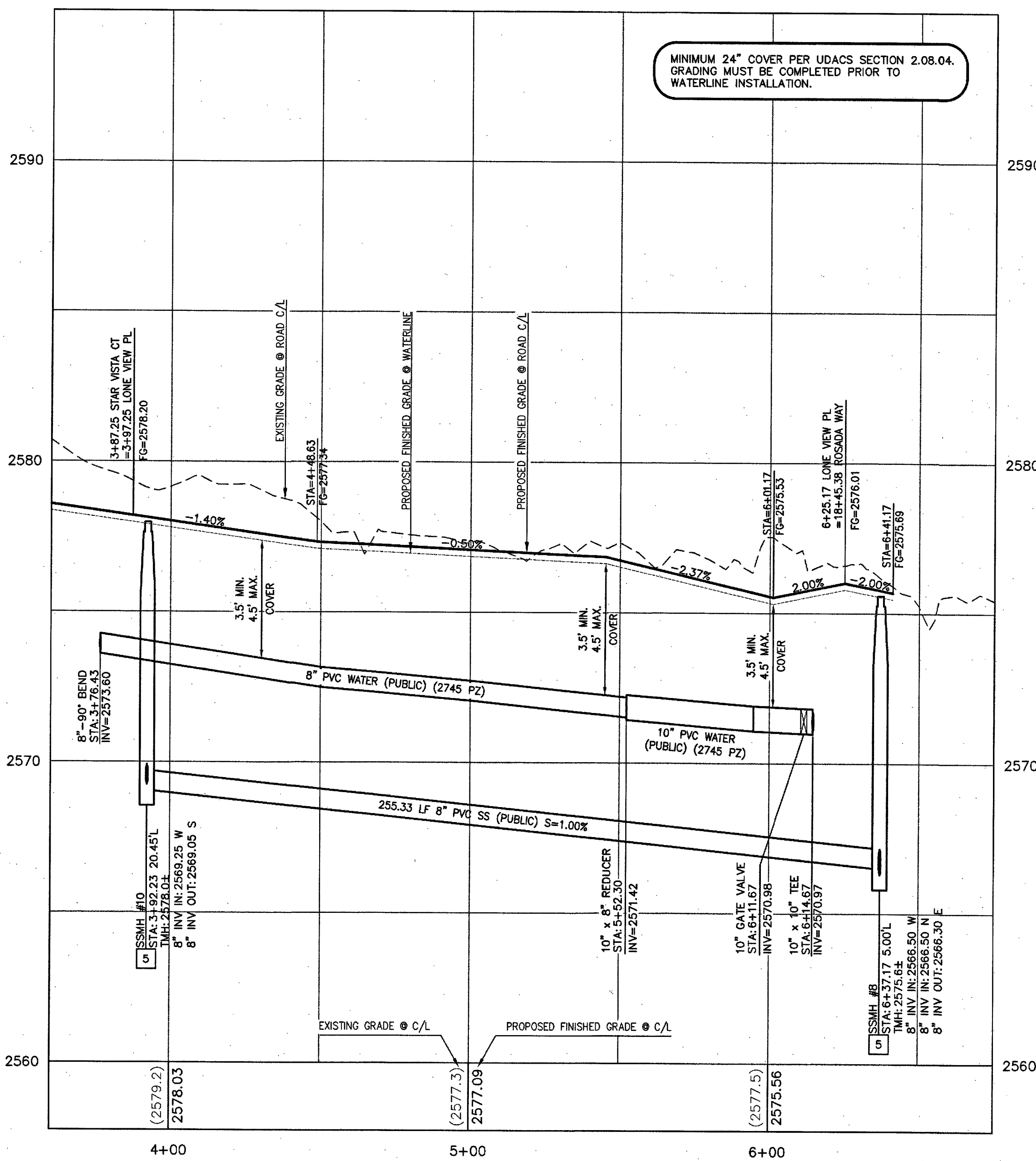
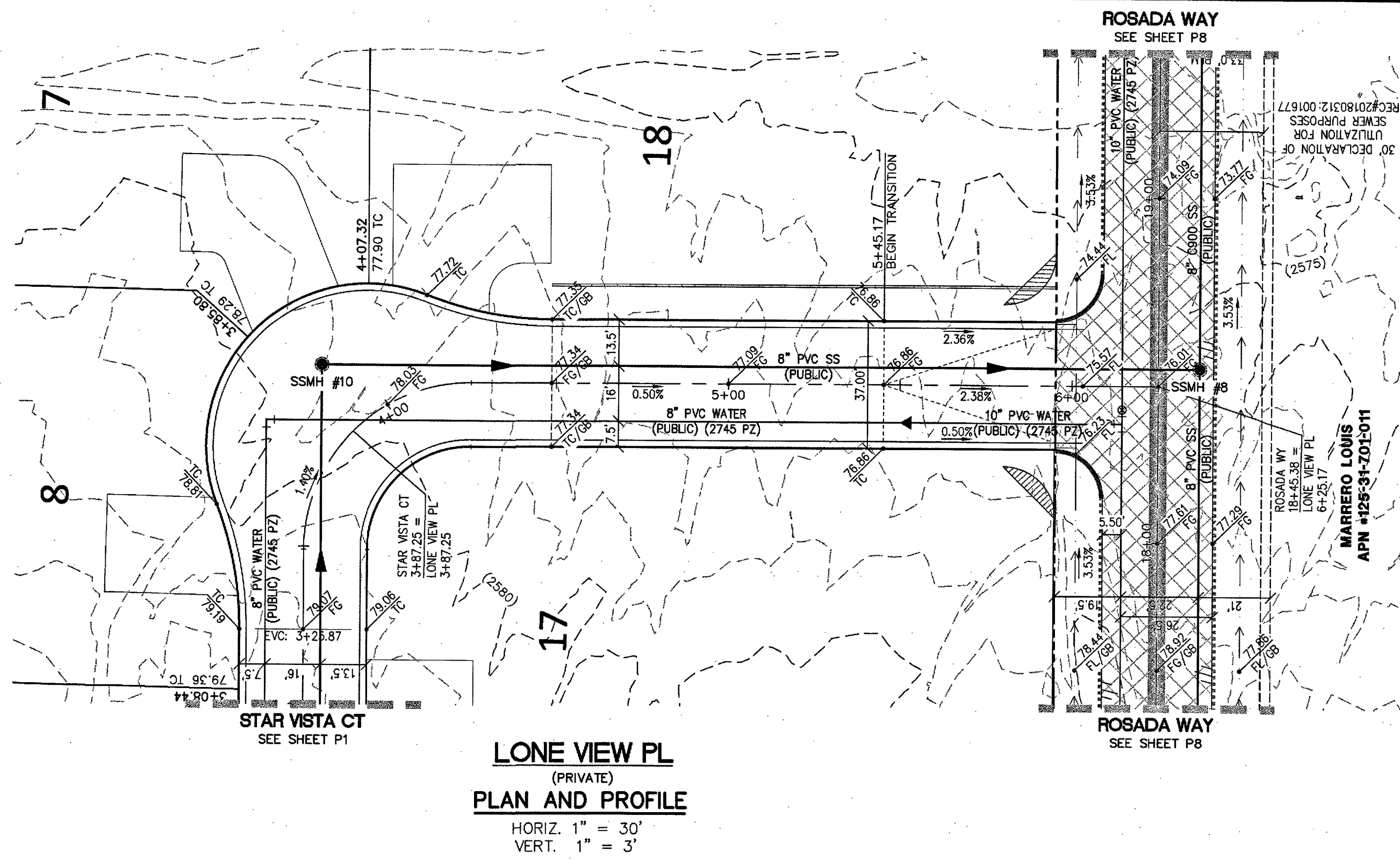
GRAND CANYON AND ROSADA

STAR VISTA CT PLAN AND PROFILE

DRAWING P1

11 OF 22 SHTS

PROJ.#126005 AGR:116583 QS:125-31-SE XC:#1437



SEWER NOTE:
 ALT "A" TO BE CONSTRUCTED
 ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

WATER

(18) INSTALL DEEP FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 41.

NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES

SEWER

(5) INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID PER DCSWCS SD-1A.
 (6) INSTALL 72" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8
 (10) INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8

NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

NOTE:

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
 2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
WATER MAIN JOINT DEFLECTION (PVC 4" - 24")
 PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03
 FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

USE OF CUT-OFF WALLS NEAR LVVWD FACILITIES

FIVE FEET MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN THE CUT-OFF WALL AND THE WATER MAIN. FOR CROSSING OVER THE PROPOSED WATER MAIN, THE MAIN MUST BE WITHIN A STEEL CASING (PER UDACS PLATE 23) SPANNING FIVE FEET ON EITHER SIDE OF THE CUTOFF WALL. VERTICAL SEPARATION OF NO LESS THAN ONE FOOT BETWEEN TOP OF CASING AND BOTTOM OF THE WALL. IF THE MAIN IS EXISTING, A MINIMUM OF ONE FOOT VERTICALLY IS REQUIRED AND CLSM 1 BETWEEN THE TOP OF THE MAIN AND THE BOTTOM OF THE CUTOFF WALL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE TO CONTRACTOR

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BASIS OF BEARING

NORTH 88°54'00" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN FILE 197, PAGE 2 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

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CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.
 ELEVATION: 2715.84 (FEET)
 827.990 (METERS)

CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007. BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
 PROJECT NO. 126005 FIRST APPROVED DATE 4/16/18

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CALL BEFORE YOU GO OVERHEAD
 1-702-227-2929

PROJECT NO. 398-A833
 DESIGN: [Signature]
 DRAWING: [Signature]
 CHECK: [Signature]
 PLOT DATE: 04-05-18
 PLOT TIME: 09:08:54

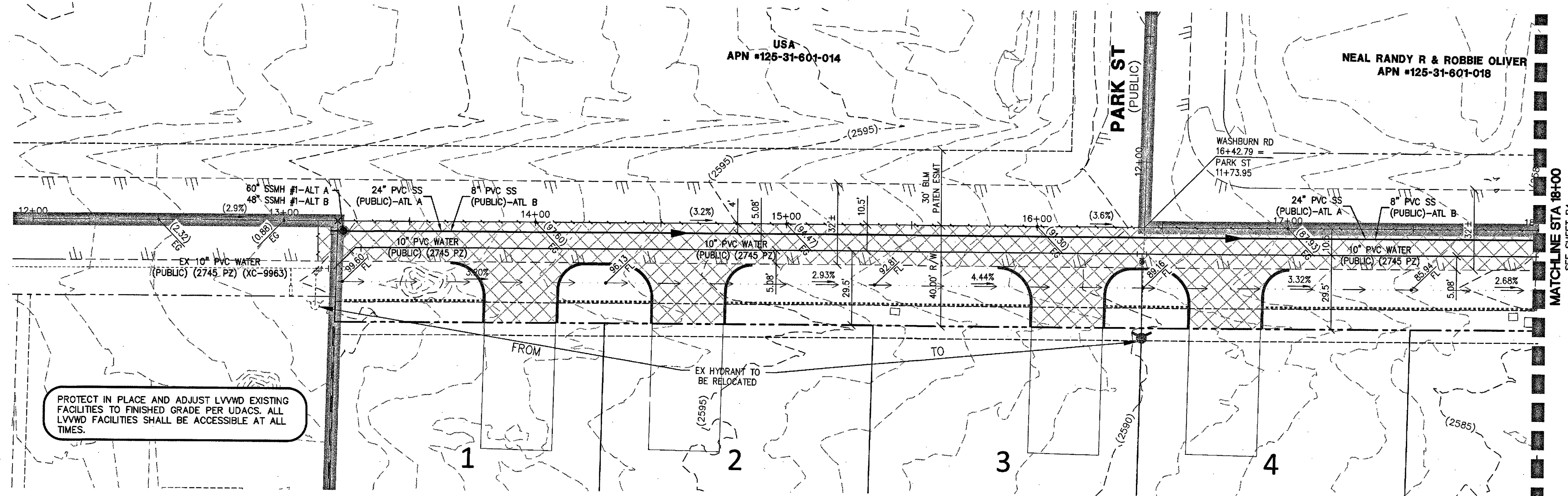
1555 S. RAINBOW BLVD.
 LAS VEGAS, NV 89146
 T: 702.804.2000
 F: 702.804.2299
 gowengineering.com

GCV
 ENGINEERS \ SURVEYORS

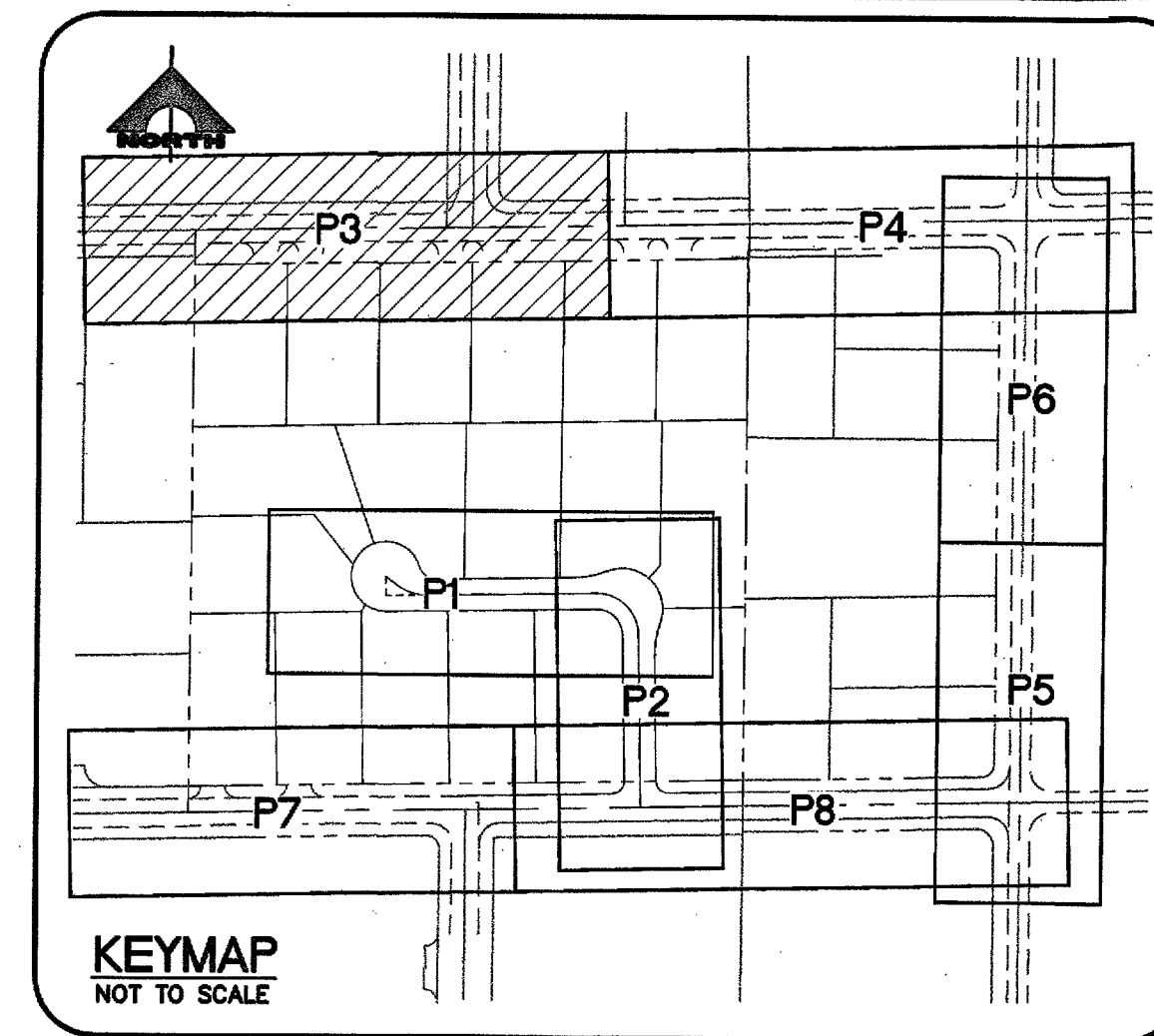
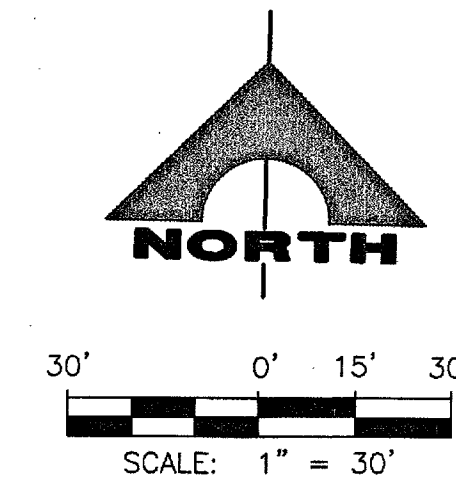
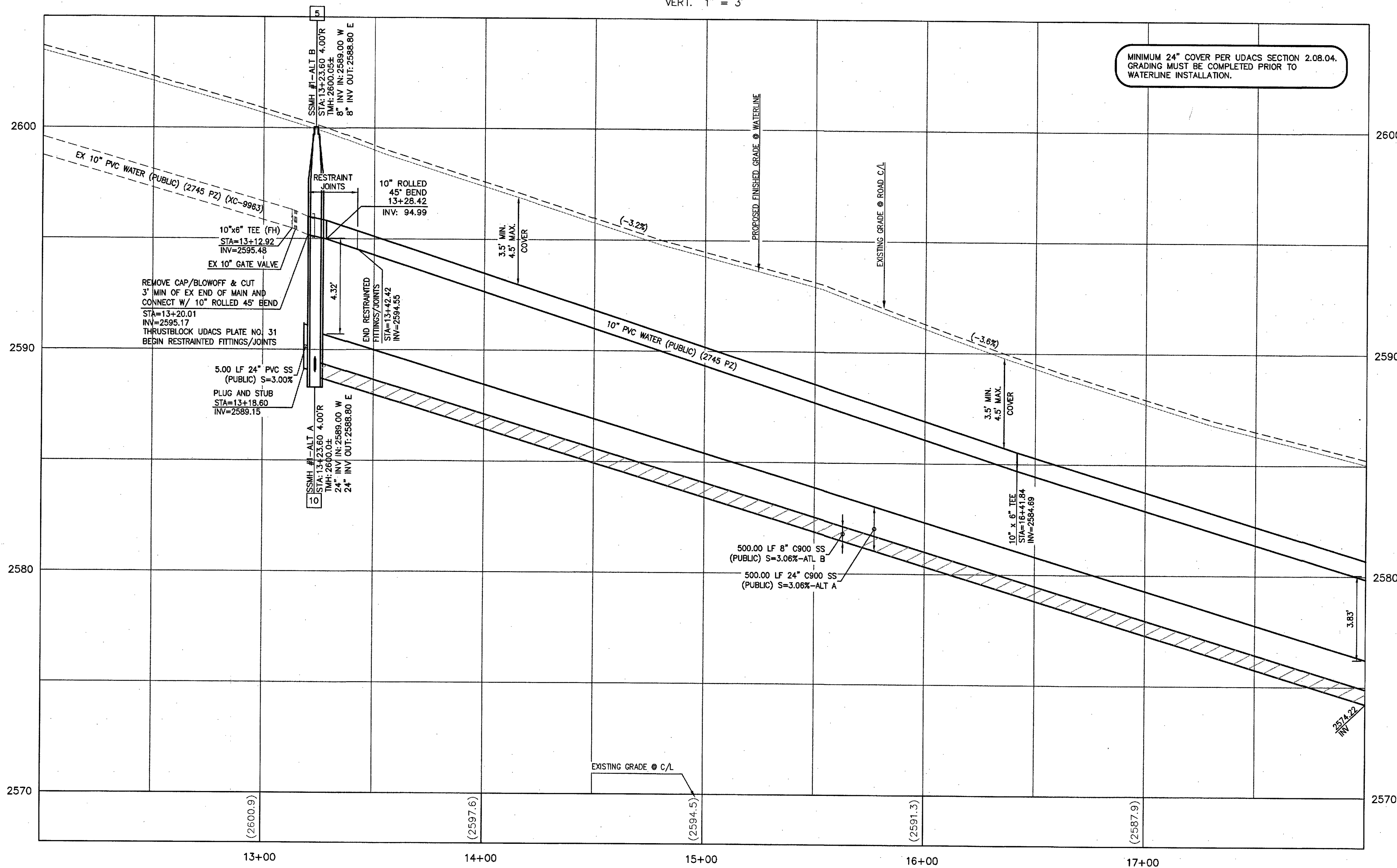
TOUCHSTONE LIVING
 GRAND CANYON AND ROSADA
 LONE VIEW PL PLAN AND PROFILE

DRAWING
P2
 12 OF 22 SHTS

PROJ# 126005 AGR:16583 QS:125-31-SE XC#11437



WASHBURN RD
(PRIVATE)
PLAN AND PROFILE
HORIZ. 1" = 30'
VERT. 1" = 3'



SEWER NOTE:
ALT "A" TO BE CONSTRUCTED
ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID PER DCSWCS SD-1A.
 - INSTALL 72" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8
 - INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8
- NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

USE OF CUT-OFF WALLS NEAR LVVWD FACILITIES

FIVE FEET MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN THE CUT-OFF WALL AND THE WATER MAIN. FOR CROSSING OVER THE PROPOSED WATER MAIN, THE MAIN MUST BE WITHIN A STEEL CASING (PER UDACS PLATE 23) SPANNING FIVE FEET ON EITHER SIDE OF THE CUTOFF WALL AND VERTICAL SEPARATION OF NO LESS THAN ONE FOOT BETWEEN TOP OF CASING AND BOTTOM OF THE WALL. IF THE MAIN IS EXISTING, A MINIMUM OF ONE FOOT VERTICALLY IS REQUIRED AND CLSM 1 BETWEEN THE TOP OF THE MAIN AND THE BOTTOM OF THE CUTOFF WALL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE:

- INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
- ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

WATER MAIN JOINT DEFLECTION (PVC 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

NOTE TO CONTRACTOR

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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.
- LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
- CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

BASIS OF BEARING

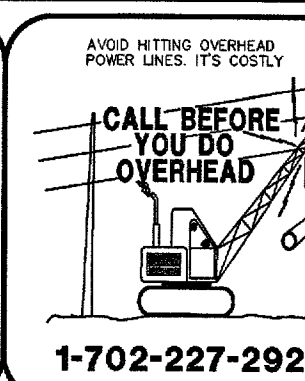
NORTH 88°54'00" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN FILE 197, PAGE 2 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.
ELEVATION: 2715.84 (FEET)
827.790 (METERS)
CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18



L# 17-01670

CLV DWG# 107Y5070

PROJECT NO. 398-A833

DESIGN: 398-A833

DRAWN: 398-A833

CHECK: 398-A833

PLOT DATE: 04-05-18

PLOT TIME: 09:08:58

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowingengineering.com

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WASHBURN RD PLAN AND PROFILE

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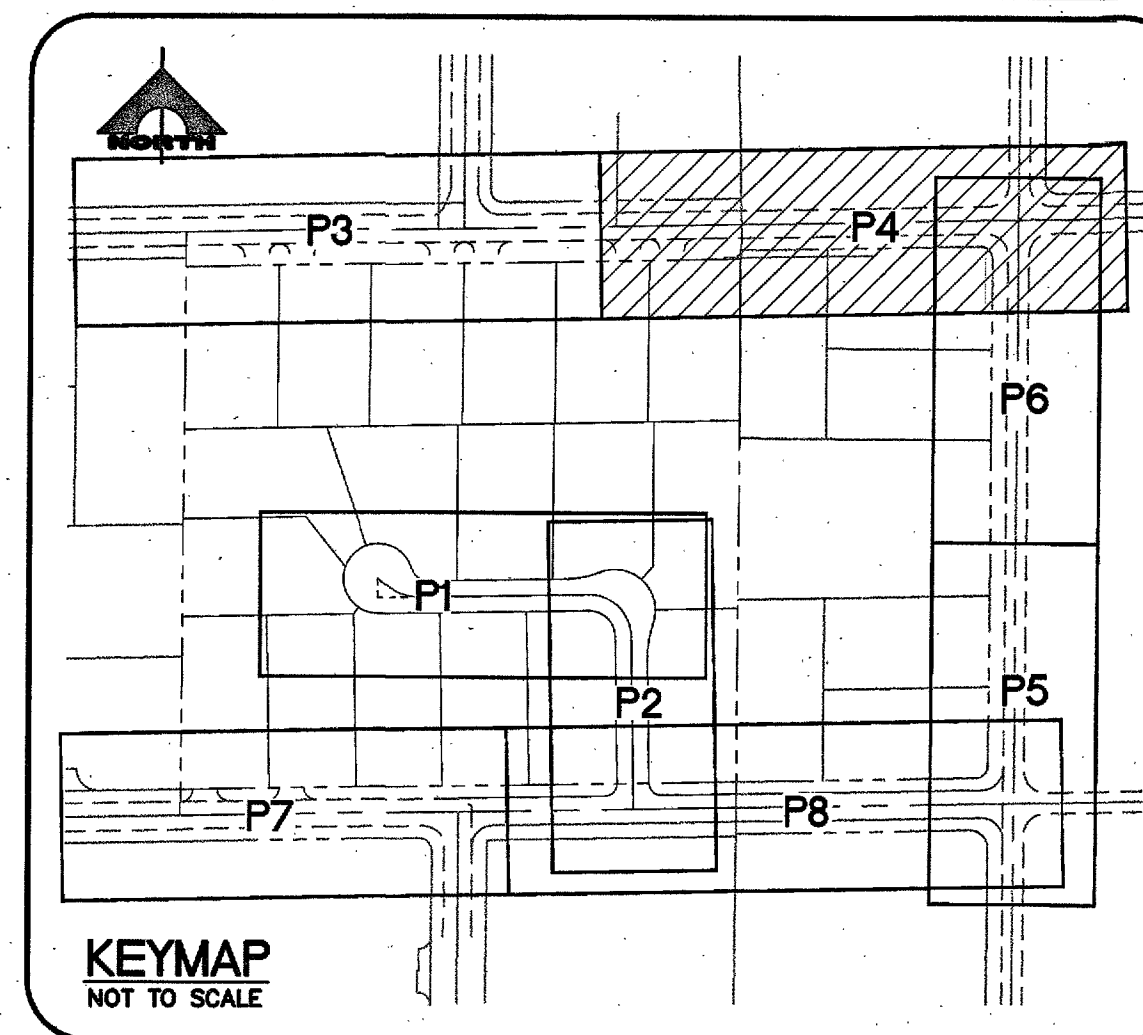
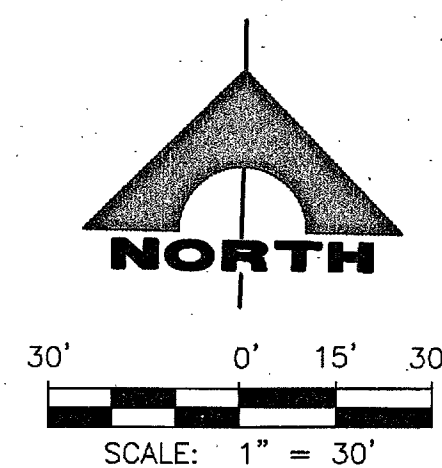
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PROJECT NO. 398-A833



SEWER NOTE:
ALT "A" TO BE CONSTRUCTED
ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

SEWER	
5	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID PER DCSWCS SD-1A.
6	INSTALL 72" DIAMETER SANITARY SEWER MANHOLE WITH DUAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8
9	CONSTRUCT CORROSION PROTECTION PER 3.16.8 OF DCSWCS.
NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES	

USE OF CUT-OFF WALLS NEAR LVVWD FACILITIES

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BASIS OF BEARING

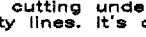
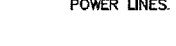
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CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

4 / DISHARD
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18

Call before you Dig Avoid hitting underground utility lines. It's costly. Call  OR 1-800-227-2600	FAST  Call before you UnderGround SYSTEMS OF TRANSPORTATION 1-702-432-5300 PREMIUM AND ARTISIAL SYSTEMS OF TRANSPORTATION	ACQUA HITTING OVERHEAD POWER LINES IS COSTLY CALL BEFORE YOU DO OVERHEAD  1-702-227-2929
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L# 17-01670

CLV DWG# 107Y5070



DATE: 04-05-18

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PROJECT NO.
398-A833

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 04-05-18
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GCV
ENGINEERS' SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

Project's 300, 398 - 4633 (DWA's Production VAS3525.dwg)
crady Guzman

TOUCHSTONE LIVING

GRAND CANYON AND ROSADA

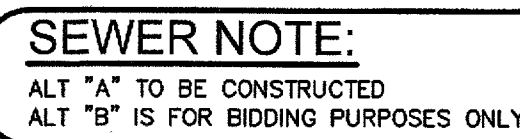
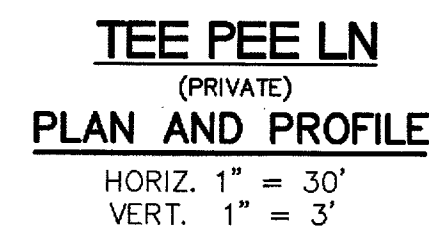
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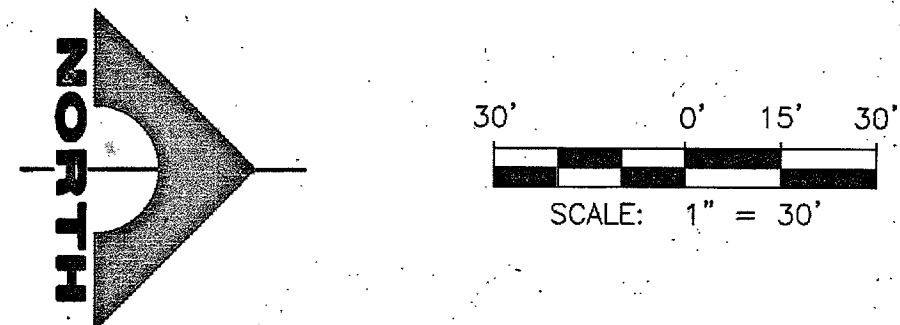


DISCLAIMER: THE DATA CONTAINED HEREIN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SOUTHWEST GAS CORPORATION MAKES NO GUARANTEE THE CORRECTNESS, COMPLETENESS, OR USEFULNESS FOR ANY PURPOSES AND HEREBY DISCLAIMS ANY LIABILITY FOR ANY LOSS OR DAMAGE, HOWEVER ARISING, FROM THE USE OF OR RELIANCE ON THE DATA PROVIDED. THE FIELD LOCATION AND DEPTH OF ALL SOUTHWEST GAS FACILITIES SHOULD BE VERIFIED.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORP.

DATE _____



NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

NOTE:

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CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN.
ELEVATION: 2715.84 (FEET)
827.790 (METERS)
CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

4 / DISHARD
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18

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

Call
811

OR
1-800-227-2600

FAST



**Call
before you
UnderGround**

1-702-432-5300

FREEWAY AND ARTERIAL
SYSTEM OF TRANSPORTATION



L# 17-01670

CLV DWG# 107Y5070



DATE: 04-05-18

398-A833

1533 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
F: 702 804 2000

CC

TOUCHSTONE LIVING

TOUCHSTONE LIVING

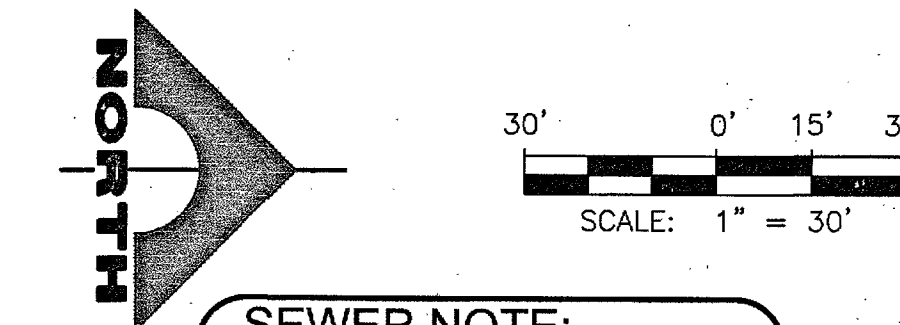
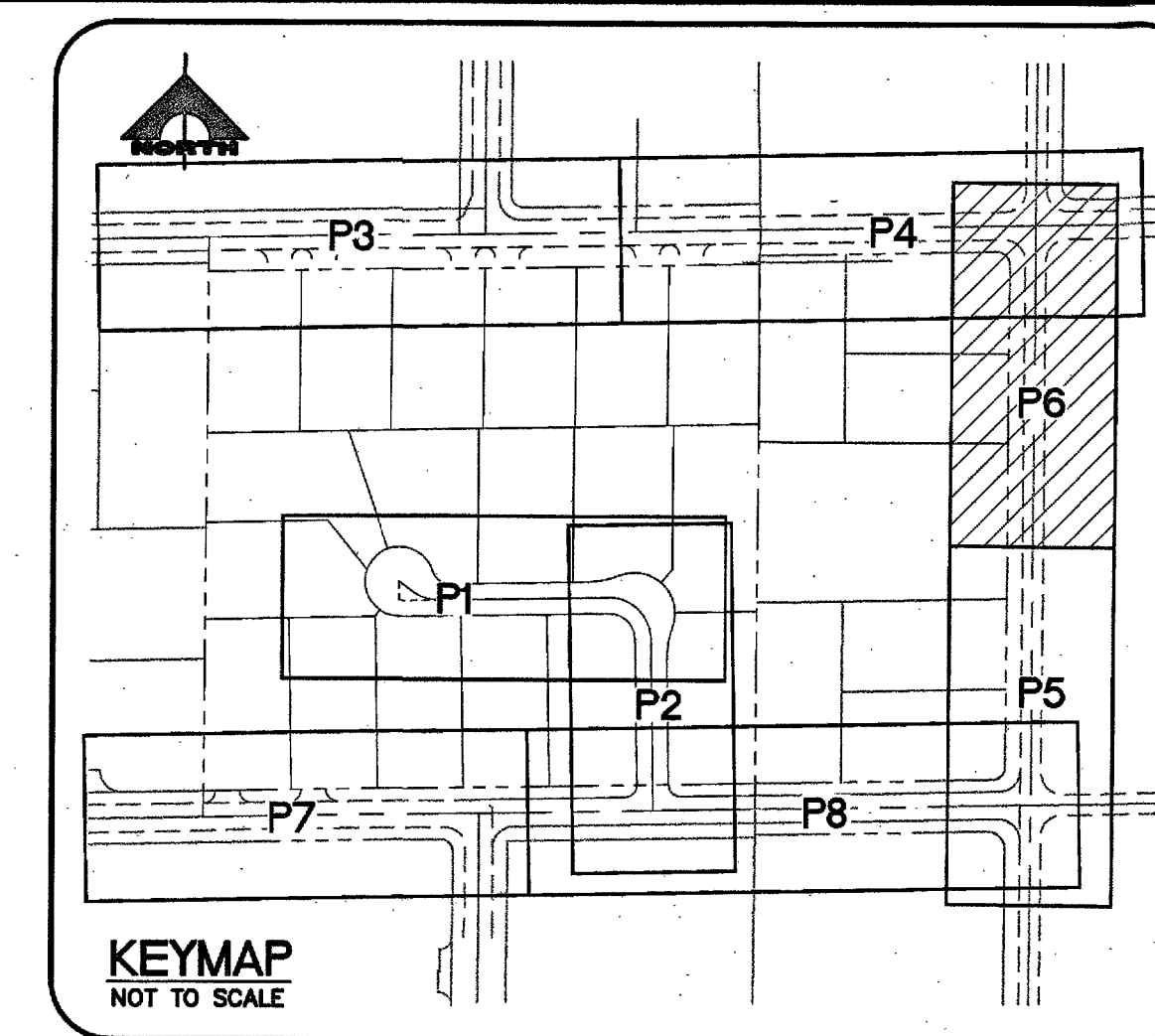
TOUCHSTONE LIVING

DRAWING
P5

15 OF 22 SHTS

PROJ#:126005 AGR:116583 QS:125-31-SE XC:#11437

HTF.



SEWER NOTE:
ALT "A" TO BE CONSTRUCTED
ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

SEWER

5 INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID PER DCSWCS SD-1A.

6 INSTALL 72" DIAMETER SEWER MANHOLE WITH OVAL CONCENTRIC LID PER SD-1A & SD-2 AND CORROSION PROTECTION PER DCSWCS 3.16.8

NOTE: SEE SHEET C3 FOR ABBREVIATIONS AND QUANTITIES

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.0
GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE

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WATER MAIN JOINT DEFLECTION (PVC, 4' - 24')

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BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT 6LV9936NEE6, BEING A RIVET AND PLATE IN CONCRETE PAD (FIRE HYDRANT) W. SIDE HUALAPAI WAY AND HAMMER LN

ELEVATION: 2715.84 (FEET)
827.790 (METERS)

CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

4 1 DISHARD
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18



L# 17-01670

CLV DWG# 107Y5070

DATE: 04-05-18

[illegible]

PROJECT NO.
398-A833

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
qcwengineering.com

GCI
ENGINEERS & SURVEYORS

PROJECT: 300-398-A833\DWG\Production\A833cP.dwg

TOUCHSTONE LIVING

GRAND CANYON AND ROSADA

TEE PEE LN PLAN AND PROFILE
STA 8+00 TO STA 12+00

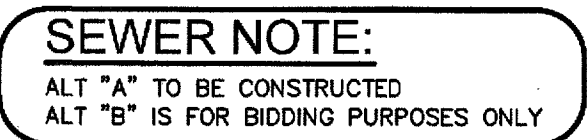
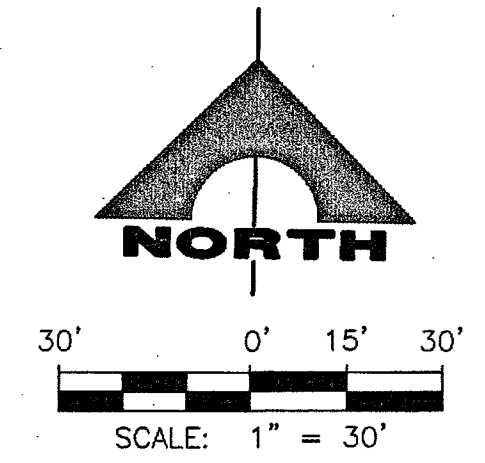
DRAWING

P6

16 OF 22 SHTS

PROJ#:126005 AGR:116583 QS:125-31-SE XC:#111437

HTE:



TO ENSURE LVVWD ACCESS WITHIN EASEMENT
ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO, LANDSCAPE
BOULDERS, FENCES / WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT

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BASIS OF BEARING

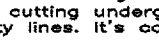
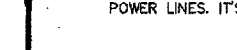
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BENCHMARK
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827.790 (METERS)
CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM 1985 (NAVD83)

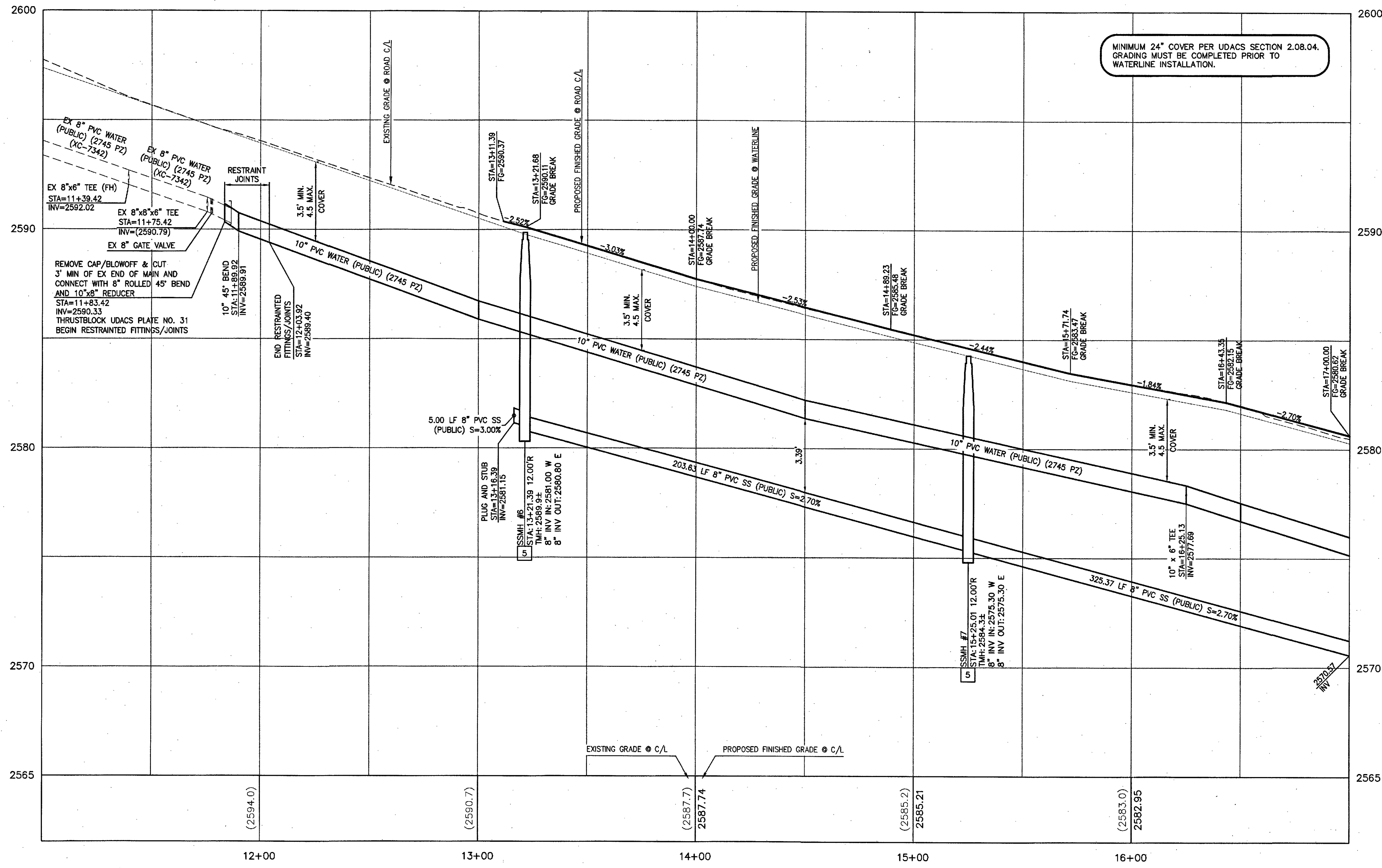
APPROVED FOR CONSTRUCTION

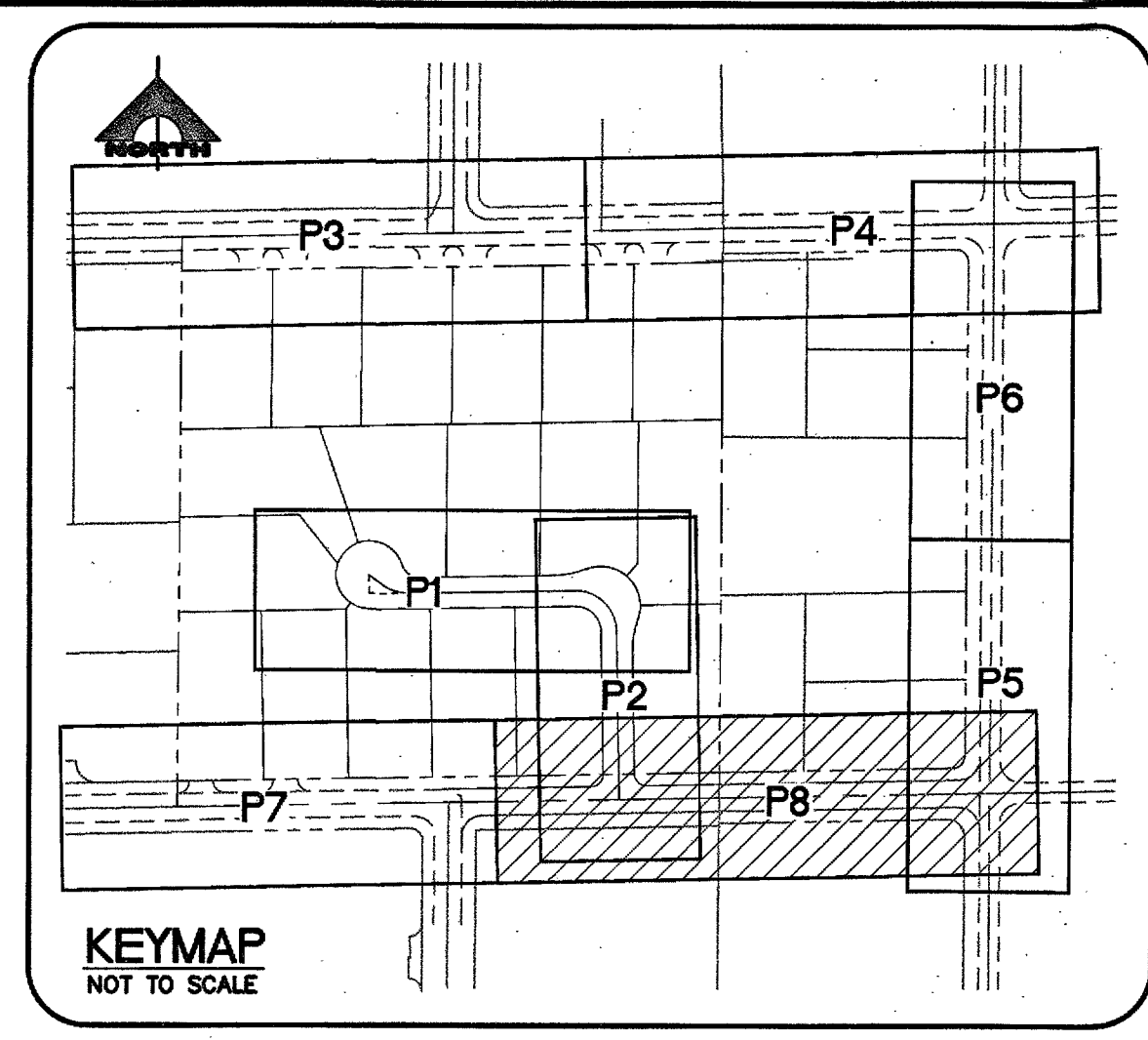
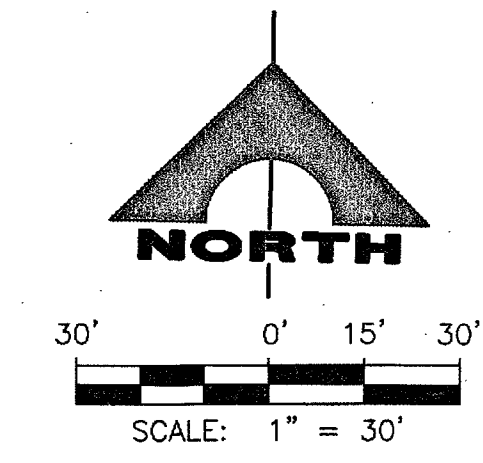
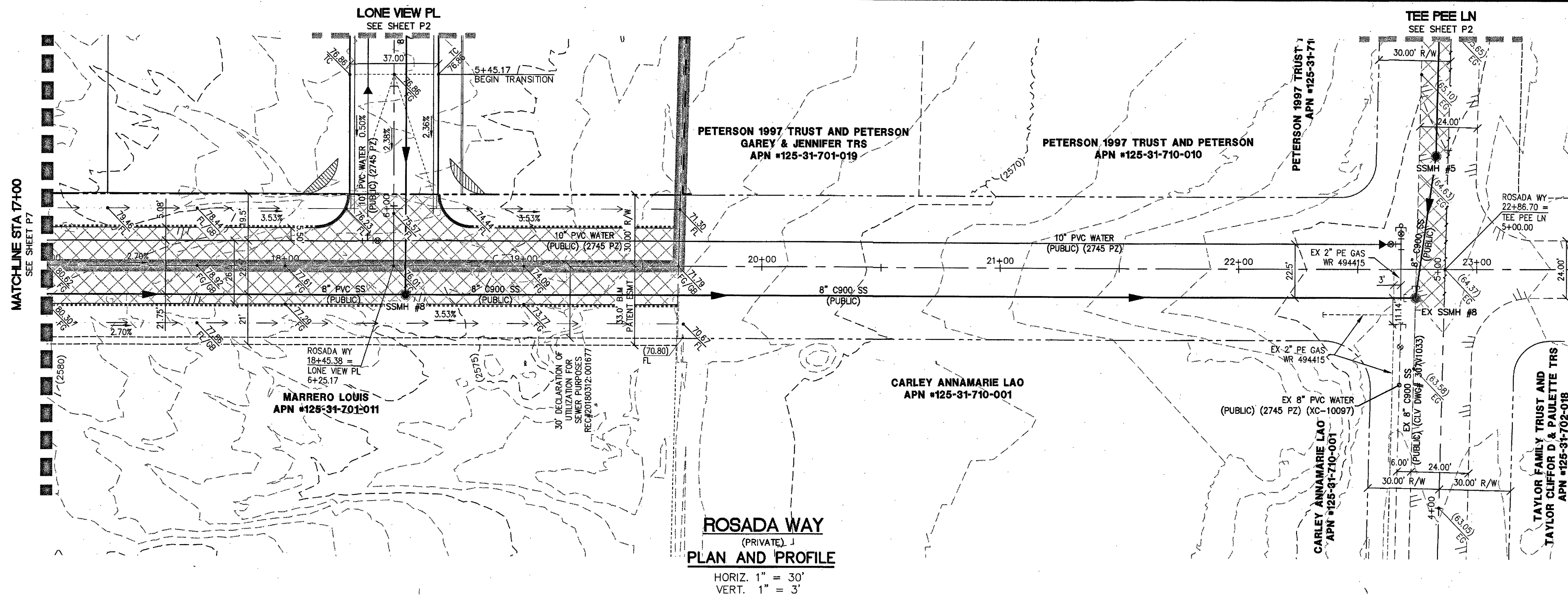
1/1/2018

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 128003 FIRST APPROVED DATE: 4/16/18

Call before you Dig Avoid cutting underground utility lines. It's costly. Call  OR 1-800-227-2600	FAST  Call  before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION	AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY CALL BEFORE YOU DO OVERHEAD  1-702-227-2929
--	--	---

TOUCHSTONE LIVING	GRAND CANYON AND ROSADA	ROSADA WAY PLAN AND PROFILE STA 11+00 TO STA 17+00	PROJECT NO. 398-A833		DATE: 04-05-18
			DESIGN: DRAWN: CHECK: PLOT DATE: 04-05-18 PLOT TIME: 09:09:13	REV DATE DESCRIPTION	
DRAWING P7 17 OF 22 SHTS			1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gowngengineering.com		
F:\Projects\300\398-A833\DWG\Production\A833cp.dwg Brady Guzman					





SEWER NOTE:
ALT "A" TO BE CONSTRUCTED
ALT "B" IS FOR BIDDING PURPOSES ONLY

CONSTRUCTION NOTES

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CITY OF LAS VEGAS BENCHMARKS - DATE RE-OBSERVED 2005 - 2007.
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

SOUTHWEST GAS APPROVAL
SOUTHWEST GAS CORP. _____ DATE _____

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 126005 FIRST APPROVED DATE: 4/16/18

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

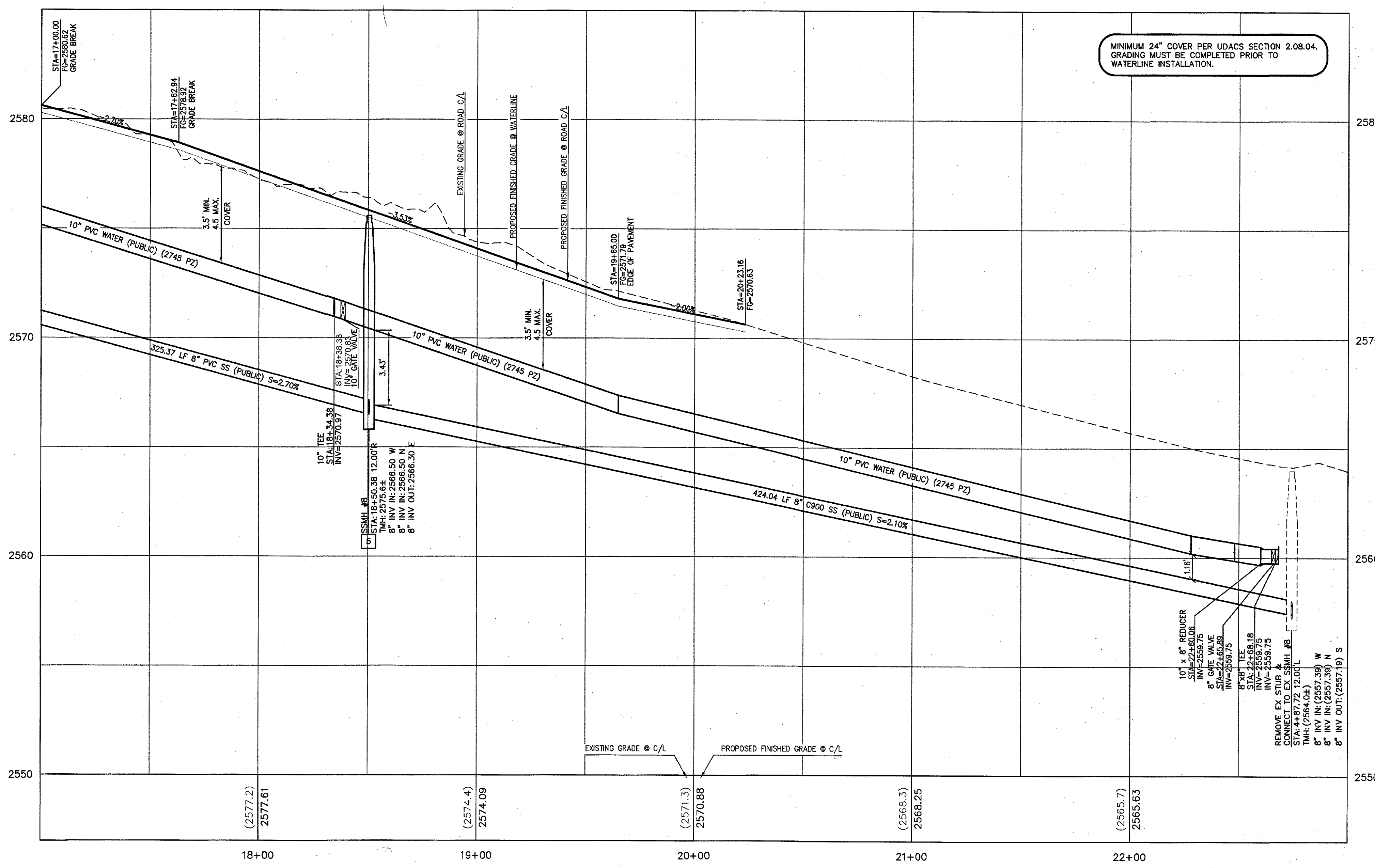
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FREIGHTWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

1-702-227-2929

DISCLAIMER: THE DATA CONTAINED HEREIN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SOUTHWEST GAS CORPORATION MAKES NO GUARANTEE THE CORRECTNESS, COMPLETENESS, OR USEFULNESS FOR ANY PURPOSES AND HEREBY DISCLAIMS ANY LIABILITY FOR ANY LOSS OR DAMAGE, HOWEVER ARISING, FROM THE USE OF OR RELIANCE ON THE DATA PROVIDED. THE FIELD LOCATION AND DEPTH OF ALL SOUTHWEST GAS FACILITIES SHOULD BE VERIFIED.
INITIAL: RKB DATE: 11-17-2017

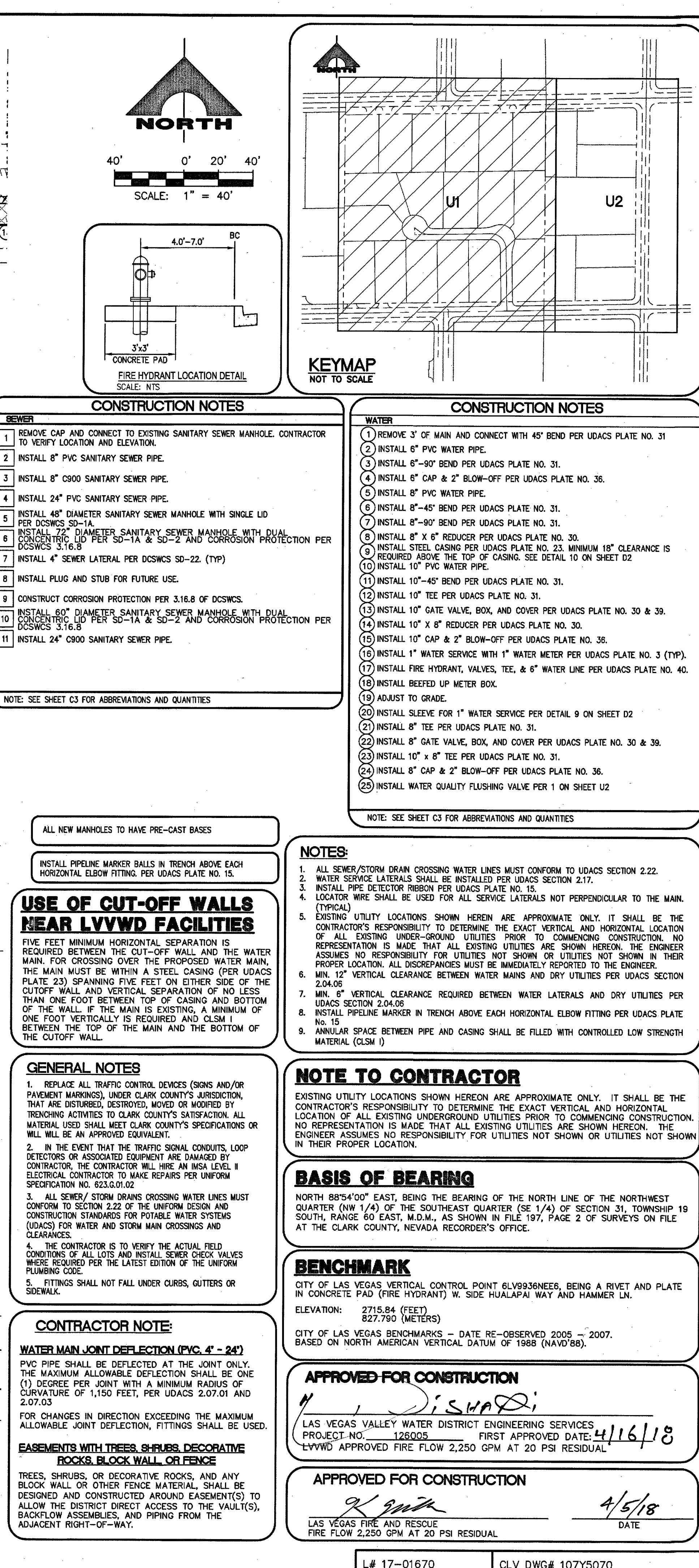


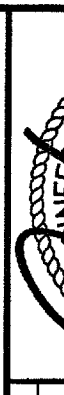
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PLOT TIME: 09:09:17
REV. DATE DESCRIPTION

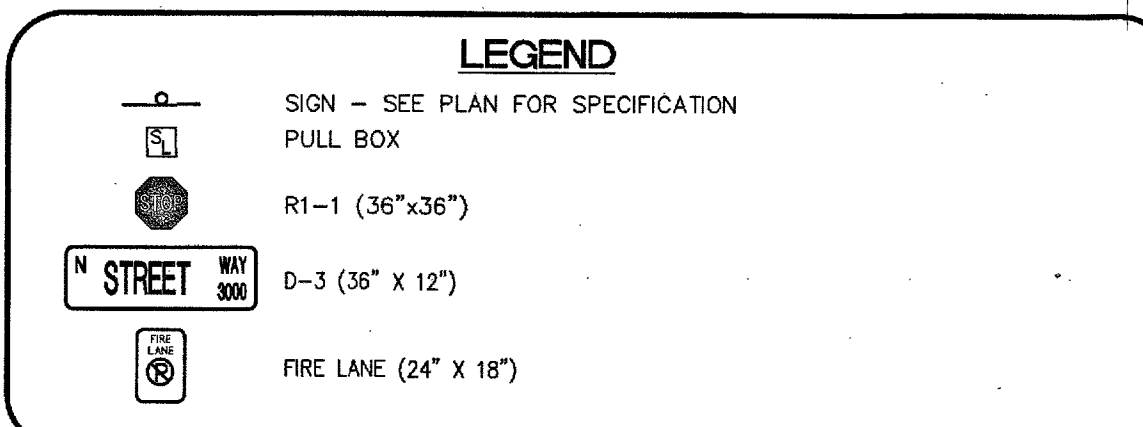
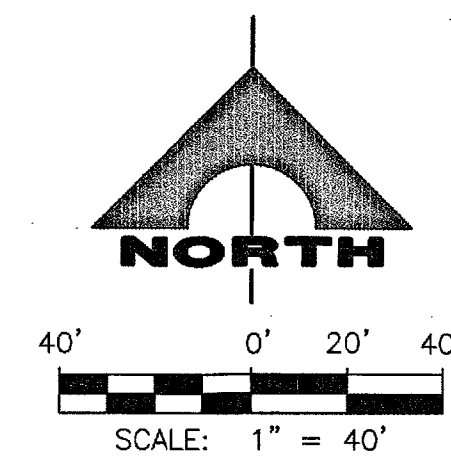
TOUCHSTONE LIVING
GRAND CANYON AND ROSADA
ROSADA WAY PLAN AND PROFILE
STA 17+00 TO STA 23+00

DRAWING
P8
18 OF 22 SHTS

PROJ: 126005 AGR: 116883 QS: 125-31-SE XC: 11437



TOUCHSTONE LIVING	 ENGINEERS\ SURVEYORS gcwengineering.com	1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gcwengineering.com	PROJECT NO. 398-A833												
			DESIGN: HN DRAWN: HN CHECK: HN PLOT DATE: 04-05-18 PLOT TIME: 09:09:46	REV	DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY	DATE	
GRAND CANYON AND ROSADA	F:\Projects\200\398-A833\DWG\Production\A833cd.dwg Brady Guzman														
UTILITY PLAN 1															
DRAWING															
U1															



GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCING ACTIVITIES OF THIS PROJECT. CITY OF LAS VEGAS'S SATISFACTION WITH MATERIAL SHALL MEET CITY OF LAS VEGAS'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN MSA LEVEL 1 ELECTRICAL CONTRACTOR TO REPAIR OR REPLACE PER UNIFORM SPECIFICATION NO. 622.01.02.
3. ALL SEWER/ STORM DRAIN CROSSING WATER LINE SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
4. CONTRACTOR SHALL VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

CONSTRUCTION NOTES

1. INSTALL (1) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1) TO BE PRIVATELY MAINTAINED.
2. INSTALL (2) STREET NAME SIGN (D3)—BROWN BACK WITH WHITE LETTERS TO BE PRIVATELY MAINTAINED.
3. PAINT CURB RED (NO PARKING) 30' WIDE CENTERED ON HYDRANT EXCEPT DRIVEWAY.
4. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS.
5. PROTECT IN PLACE.
6. REMOVE EXISTING OM4-3 AND RETURN TO CCPW.
7. INSTALL 30" STOP SIGN (R1-1).
- 8.
9. INSTALL CONDUIT CAP FOR FUTURE CONNECTION.
10. INSTALL 3 $\frac{1}{2}$ " PULLBOX.
11. INSTALL 2" STREET LIGHT CONDUIT WITH 2-#4 & 1-#8 THW WIRE.
12. PAINT CURB RED (NO PARKING)
13. INSTALL NO PARKING—FIRE LANE SIGN

BASIS OF BEARING

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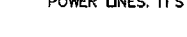
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APPROVED FOR CONSTRUCTION

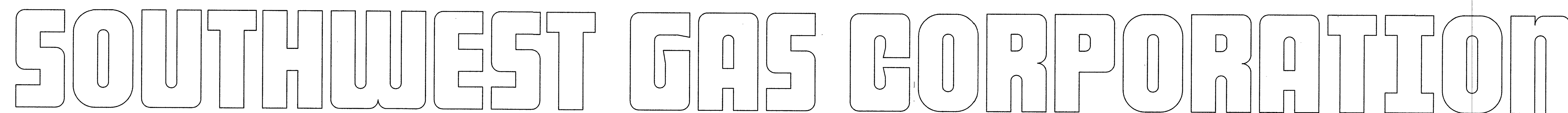
R. J. Smith 4/5/18

LAS VEGAS FIRE AND RESCUE DATE

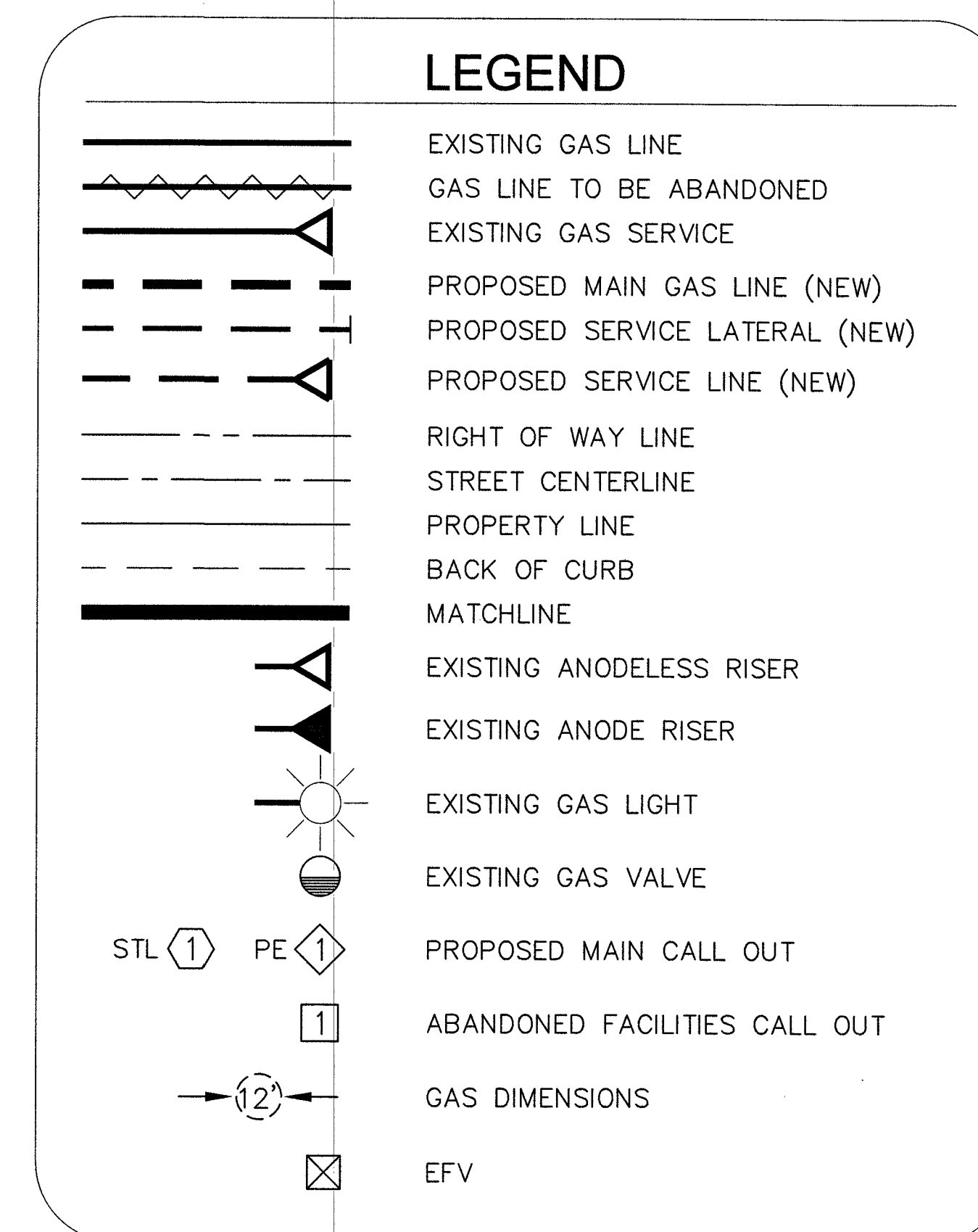
LINE TABLE			CURVE TABLE			
LINE	LENGTH	BEARING	CURVE	RADIUS	LENGTH	DELTA
L1	169.83'	N1° 03' 22.29"W	C1	30.00'	47.12'	090°00'00"
L2	244.14'	S88° 56' 37.71"W	C2	40.50'	178.72'	252°50'27"
L3	181.84'	S88° 56' 37.71"W	C3	19.50'	25.36'	074°31'01"
L4	146.54'	N1° 03' 22.29"W	C4	100.00'	37.10'	021°15'20"
L5	643.35'	N88° 56' 37.71"E	C5	47.00'	108.70'	132°30'40"
			C6	100.00'	37.10'	021°15'20"

Call before you Dig Avoid hitting underground utility lines. It's costly. Call  OR 1-800-227-2600	FAST Call before you Under Ground 1-702-432-5300 FREEMAN AND ARTISAL SYSTEMS OF TRANSPORTATION	AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY CALL BEFORE YOU DO OVERHEAD  1-702-227-2929
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TOUCHSTONE LIVING GRAND CANYON AND ROSADA TRAFFIC PLAN 1	DRAWING T1 22 OF 22 SHTS		1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gcwengineering.com GCW' ENGINEERS\ SURVEYORS F:\Projects\300\398-AB33\DWG\Production\A433.ctb.dwg Brady Guzman		PROJECT NO. 398-AB33 DESIGN: _____ DRAWING: _____ CHECK: _____ PLOT DATE: 04-05-18 PLOT TIME: 09:10:02	PROJECT NO. 398-AB33	REV DATE DESCRIPTION	DATE ASGN APP DATE GCW APP	DATE: 04-05-18
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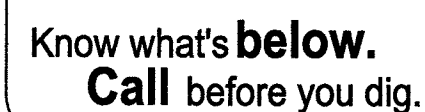


S GRAND CANYON AND ROSADA
CITY LAS VEGAS/CLARK COUNTY, NV
WR #3503456



SHEET INDEX

1. COVER SHEET
2. ABBREVIATIONS & NOTES
3. MATERIALS & SIGNATURES
4. DESIGN PLAN
5. DESIGN PLAN
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**PRELIMINARY
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CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	PQF	PREQUALIFIED FITTING
CIP	CAST IRON PIPE	PVC	POLYVINYL CHLORIDE
CL	CENTERLINE		
CLV	CITY OF LAS VEGAS	RAM	RISK ASSESSMENT MODEL
CNLV	CITY OF NORTH LAS VEGAS	RC	REINFORCED CONCRETE
COH	CITY OF HENDERSON	RCP	REINFORCED CONCRETE PIPE
		SD	STORM DRAIN
DET	DETAIL	SDMH	STORM DRAIN MANHOLE
DI	DUCTILE IRON	SDR	STANDARD DIMENSION RATIO
DIA	DIAMETER	SF	SQUARE FOOT
DIMP	DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM	SHT	SHEET
DNR	DOES NOT REGISTER	SHP	STEEL HIGH PRESSURE PIPE
DWG	DRAWING	SMYS	SPECIFIED MAXIMUM YIELD STRENGTH
EFV	EXCESS FLOW VALVE	SNWA	SOUTHERN NEVADA WATER AUTHORITY
EG	EXISTING GROUND	SS	SANITARY SEWER
EHDD	EFFECTIVE HEATING DEGREE DAY	SST	STAINLESS STEEL
ELEC	ELECTRICAL	ST	STREET
ELEV	ELEVATION	STA	STATION
EMRS	ELECTRONIC MAPPING RECORDS SYSTEM	STD	STRENGTH TEST DRAWING
EPR	ELECTRONIC PRESSURE RECORDERS	STL	STEEL
ESMT	EASEMENT	SWG	SOUTHWEST GAS
EX	EXISTING		
FERC	FEDERAL ENERGY REGULATORY COMMISSION	TEL	TELEPHONE
FOS	FACILITY OUT OF SERVICE	TB	THRUST BLOCK
FH	FIRE HYDRANT	TOP	TOP OF PIPE
GIR	GAS INFRASTRUCTRE REPLACEMENT	TP	TEST POINT
GPR	GAS PRESSURE REGULATOR	TRIMP	TRANSMISSION INTEGRITY MANAGEMENT PROGRAM
HCA	HIGH CONSEQUENCE AREA		
HDD	HEATING DEGREE DAY	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
HDPE	HIGH DENSITY POLYETHYLENE PIPE	UOC	UNUSUAL OPERATING CONDITIONS
HP	HIGH PRESSURE	UOP	UNIT OF PROPERTY
HERS	HOME ENERGY RATING SYSTEM	UPRR	UNION PACIFIC RAILROAD
HOP	HISTORIC OPERATING PROCEDURE	USD	UNIFORM STANDARD DRAWING
HVTT	HIGH VOLUME TAPPING TEE		
ID	INSIDE DIAMETER	VCP	VITRIFIED CLAY PIPE
IN	INCH(ES)	VERT	VERTICAL
IPS	IRON PIPE SIZE	VG	VALLEY GUTTER
IS	IDENTIFIED SITE	VSP	VINTAGE STEEL PIPE
JT	JOINT TRENCH		
KRG	KERN RIVER GAS COMPANY		
LDCPE	LARGE DIAMETER COILED POLYETHYLENE PIPE		
LVVWD	LAS VEGAS VALLEY WATER DISTRICT	W	WATER
MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE	WMS	WORK MANAGEMENT SYSTEM
MCFH	THOUSAND CUBIC FEET PER HOUR	WR	WORK REQUEST
MH	MANHOLE	WT	WALL THICKNESS
MOP	MAXIMUM OPERATING PRESSURE	WV	WATER VALVE
MSA	METER SET ASSEMBLY		
MVP	MAPPING VERIFICATION PROCEDURE	YD	YARD(S)
NAP	NOT A PART		
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION		
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD		
NTS	NOT TO SCALE		

CONSTRUCTION NOTES

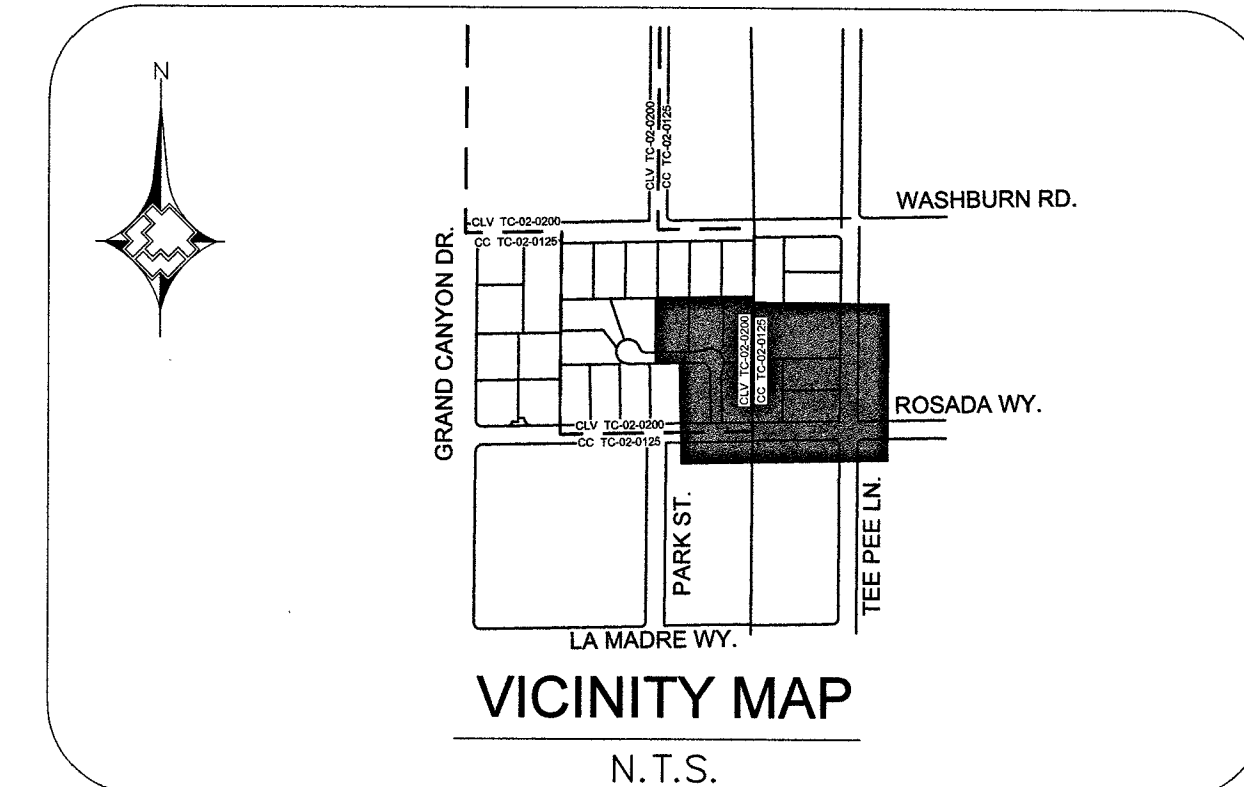
1. SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES LOCATE IN FIELD.
2. ALL PIPELINE CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTION SPECIFICATIONS.
3. DO NOT SCALE THIS DRAWING.
4. CHANGE IN PROPOSED MAIN LOCATION MUST BE AUTHORIZED BY SWG ENGINEER PRIOR TO INSTALLATION.
5. GAS MAINS SHALL BE PURGED PER OPERATIONS MANUAL.
6. ALL EXISTING UTILITY LOCATION TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.
7. CONTACT ENGINEERING FOR BYPASS INFORMATION.
8. ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED.
9. ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
10. REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
11. TRENCHING AND PAVEMENT REPLACEMENT SHALL CONFORM WITH RTC STANDARD 503. AND UNIFORM STANDARD SPEC SECTION 208.

RTC NOTES:

PAVEMENT REPAIR SHALL CONFORM TO RTC:

A1 503

[illegible]



MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CLV 02-020		
ITEM#	STOCK ID#	DESCRIPTION
1	100-5201	4" PE MAIN
3	140-3076	4" PE FULL FLOW TEE
4	140-3062	4" PE CAP
5	140-3069	4" PE 90 DEGREE ELBOW
6	101-8526	1" PE SERVICE
7	160-8090	4"X1" PE TAPPING TEE W/1200 EFV
8	160-8395	4"X1" PE TAPPING TEE W/1800 EFV
9	850-8773	1" PE CAP
11	100-5101	2" PE MAIN
12	140-3060	2" PE CAP
13	160-8577	2"X1" PE TAPPING TEE W/1200 EFV
14	160-8394	2" X1" PE TAPPING TEE W/1800 EFV

MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CC 02-0125		
ITEM#	STOCK ID#	DESCRIPTION
①	100-5201	4" PE MAIN
②	140-3532	2" PE COUPLING
⑤	140-3069	4" PE 90 DEGREE ELBOW
⑩	140-5118	4"X2" PE REDUCER

RTC NOTES:
PAVEMENT REPAIR SHALL CONFORM TO RTC:
 503

**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: _____ BY: _____

[illegible]

AS-BUILT DRAWING-PRESSURE TEST DATA			
	TEST MEDIUM	TEST METHOD	
PIPE DIA. _____	☐ AIR	☐ GAUGE	
PIPE LENGTH _____	☐ NITROGEN	☐ CHART	
PIPE TYPE _____	☐ WATER	☐ GAUGE/ PRESS REC #	
MIN. DURATION _____	SOAP		
TEST PRES. (PSIG) _____	START _____	END _____	
TIME _____			
DATE _____			
PERFORMED BY _____			

VISUAL INSPECTION CERTIFICATION	
I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, JOINTS, WELDS, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED	
NAME _____	DATE _____
SEE SHEET 3	
AS-BUILTS ACCEPTED BY _____	DATE _____
POSTED BY _____	DATE _____
POSTING QCD BY _____	DATE _____

CONSTRUCTION

INSPECTOR _____

FOREMAN _____

REVIEWED BY _____

SEE SHEET 3

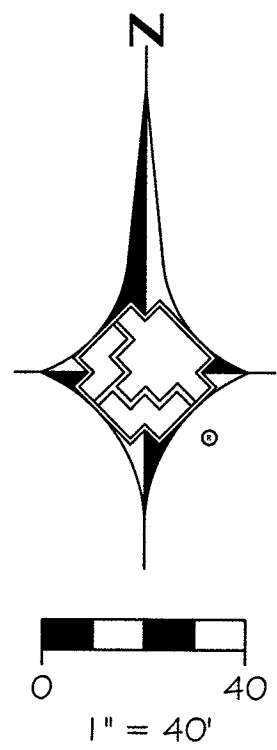
PERMIT INFORMATION

CITY OF LAS VEGAS
CLARK COUNTY
TAX CODE 02-0200 + 02-0125

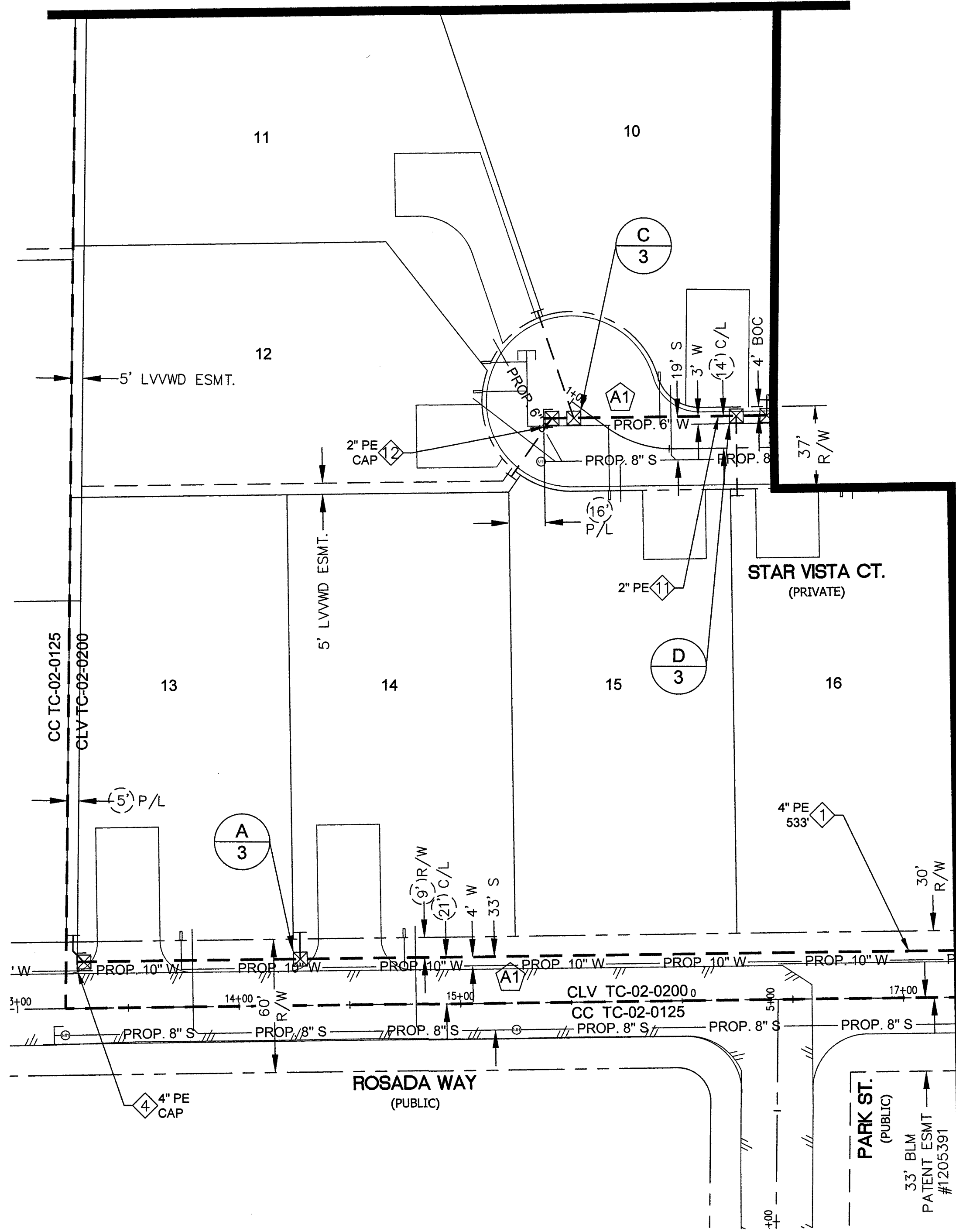
ISOLATION AREA
ISO_21_DIST_296
LOCATION
SEC 3 I
T I 95 RGOE
M.D.M

	W.R. NO.
	3503456
	ATLAS #/TILE #
	x582y546
	x582y548

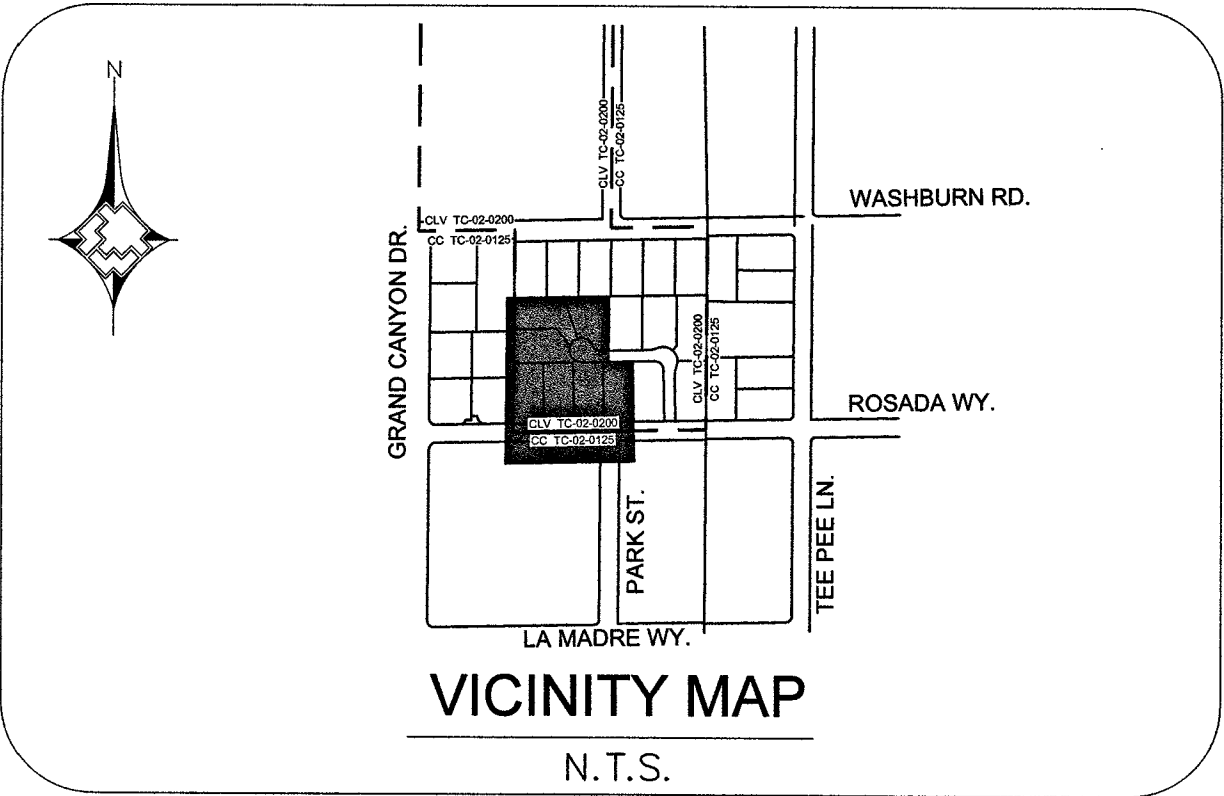
ENGINEER/TECHNICIAN		RYAN STEMMERIK	PHONE	702-365-2311
ACCOUNT REP.		MAX HUGHES	PHONE	702-755-6421
PROJECT CONTACT		DAVE WAGNER		
SHEET NO.	4	OF	8	SCALE: 1"=40'
DATE:		01/04/2018		
DWN. BY		SEI	CHKD. BY	APPVD. BY
TITLE				
S GRAND CANYON AND ROSADA DESIGN PLAN				



MATCHLINE - SEE SHEET 7



MATCHLINE - SEE SHEET 4

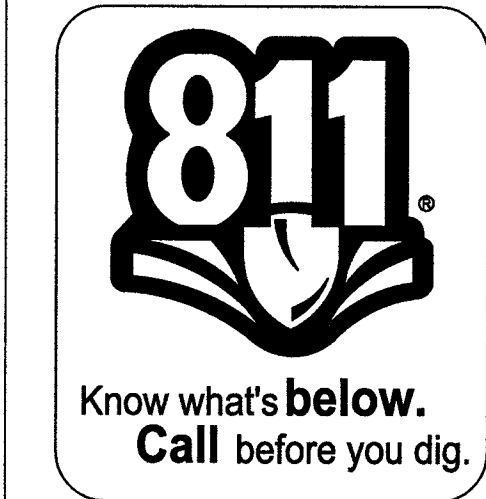


MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CLV 02-0200		
ITEM#	STOCK ID#	DESCRIPTION
1	100-5201	4" PE MAIN
3	140-3076	4" PE FULL FLOW TEE
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8	160-8395	4"x1" PE TAPPING TEE W/1800 EFV
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MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CC 02-0125		
ITEM#	STOCK ID#	DESCRIPTION
1	100-5201	4" PE MAIN
2	140-3532	2" PE COUPLING
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10	140-5118	4"x2" PE REDUCER

PRELIMINARY
NOT FOR
CONSTRUCTION

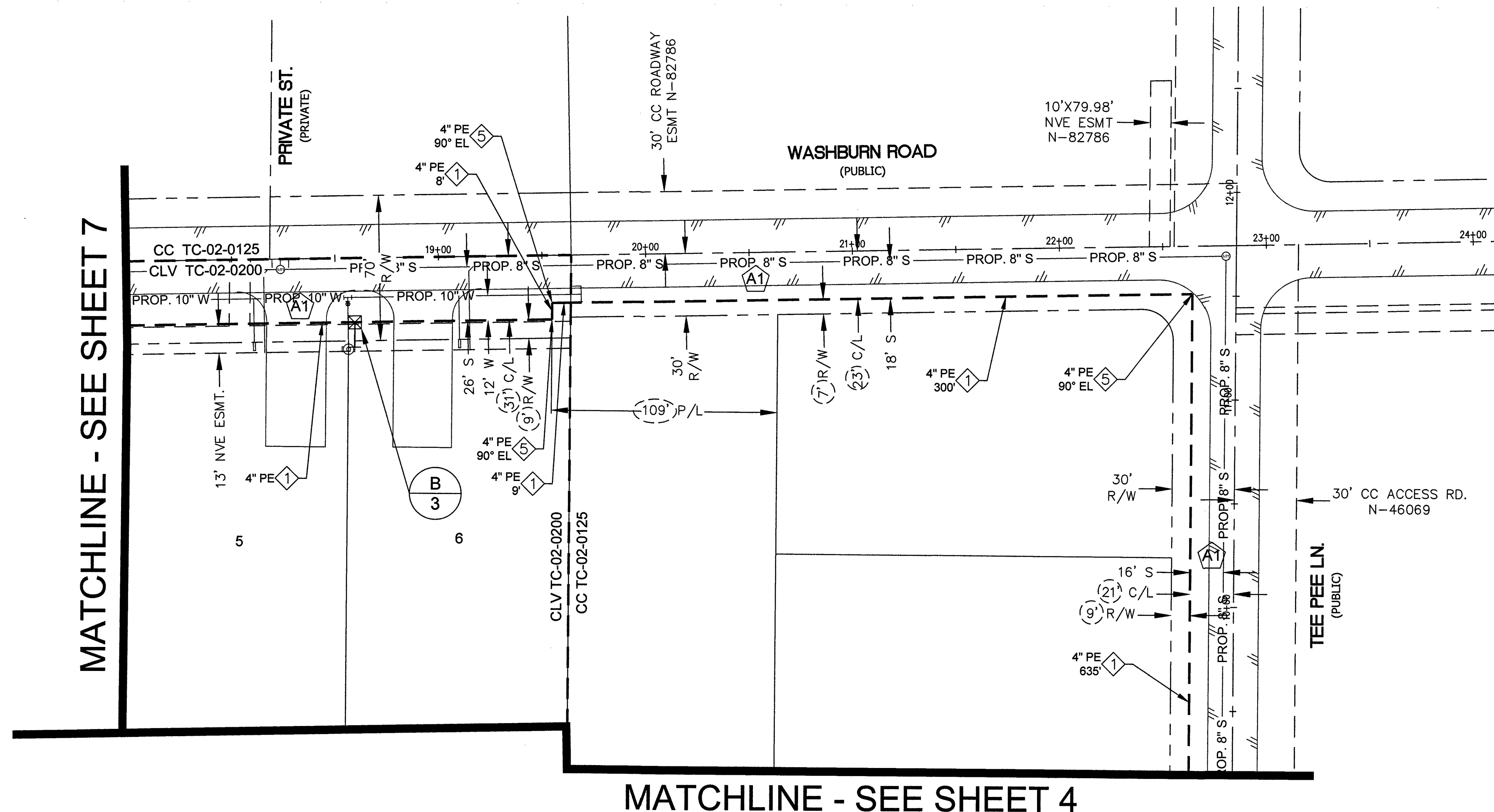
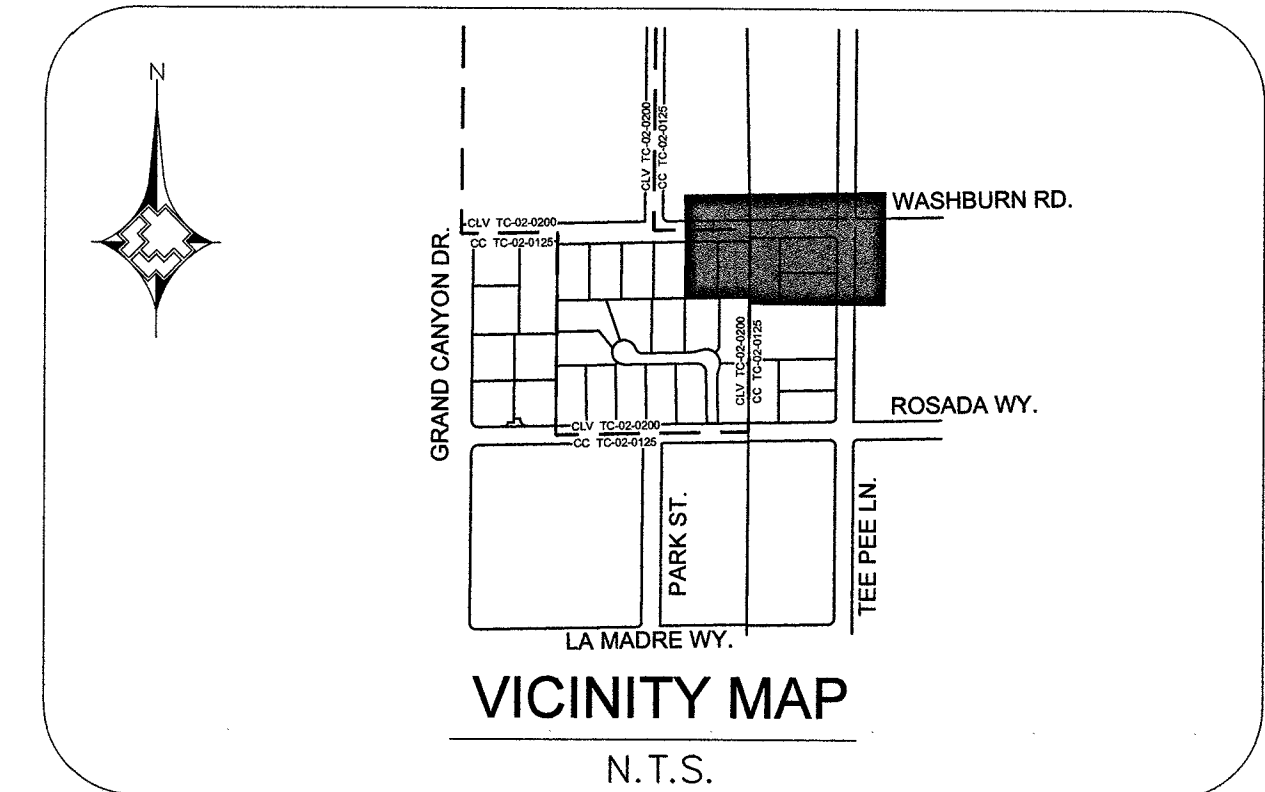
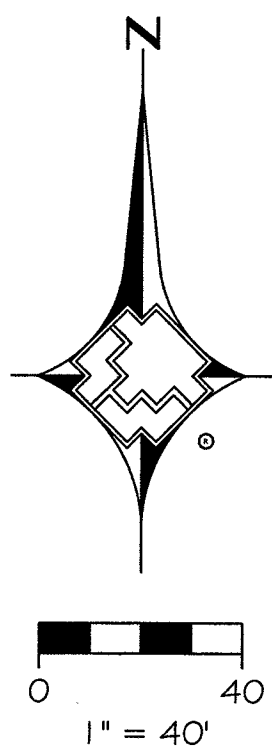
DATE: _____ BY: _____



1. 2. 3. 4. NO. DESCRIPTION BY DATE APPVD. REVISIONS	TAX CODES UNIT NO. UNIT TYPE INSTL. RETIRED INSTL. RETIRED PROPOSED COMPLETED PROPERTY UNITS	AS-BUILT DRAWING-PRESSURE TEST DATA PIPE DIA. _____ TEST MEDIUM _____ TEST METHOD _____ PIPE LENGTH _____ ☐ AIR ☐ GAUGE PIPE TYPE _____ ☐ NITROGEN ☐ CHART _____ ☐ WATER ☐ GAUGE/ PRESS REC SN# MIN. DURATION _____ SOAP _____ TEST PRES. (PSIG) _____ START _____ END _____ TIME _____ DATE _____ PERFORMED BY _____	VISUAL INSPECTION CERTIFICATION I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, JOINT CEMENT, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED NAME _____ DATE _____ SEE SHEET 3 AS-BUILTS ACCEPTED BY _____ DATE _____ POSTED BY _____ DATE _____ POSTING QCD BY _____ DATE _____	CONSTRUCTION INSPECTOR _____ FOREMAN _____ REVIEWED BY _____ SEE SHEET 3 PERMIT INFORMATION CITY OF LAS VEGAS CLARK COUNTY TAX CODE 02-0200 & 02-0125	ISOLATION AREA ISO_21_DIST_296 W.R. NO. 3503456 LOCATION SEC 31 T195 R60E M.D.M ATLAS #/TILE # x582y546 x582y548	ENGINEER/TECHNICIAN RYAN STEMMERIK PHONE 702-365-2311 ACCOUNT REP. MAX HUGHES PHONE 702-755-6426 PROJECT CONTACT DAVE WAGNER SHEET NO. 5 OF 8 SCALE: 1"=40' DATE: 01/04/2018 DWN. BY SEI CHKD. BY _____ APPVD. BY _____ TITLE S GRAND CANYON AND ROSADA DESIGN PLAN L17-01670 107Y5070
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DOC 3503456



MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CLV 02-0200		
ITEM#	STOCK ID#	DESCRIPTION
1	100-5201	4" PE MAIN
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MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CC 02-0125		
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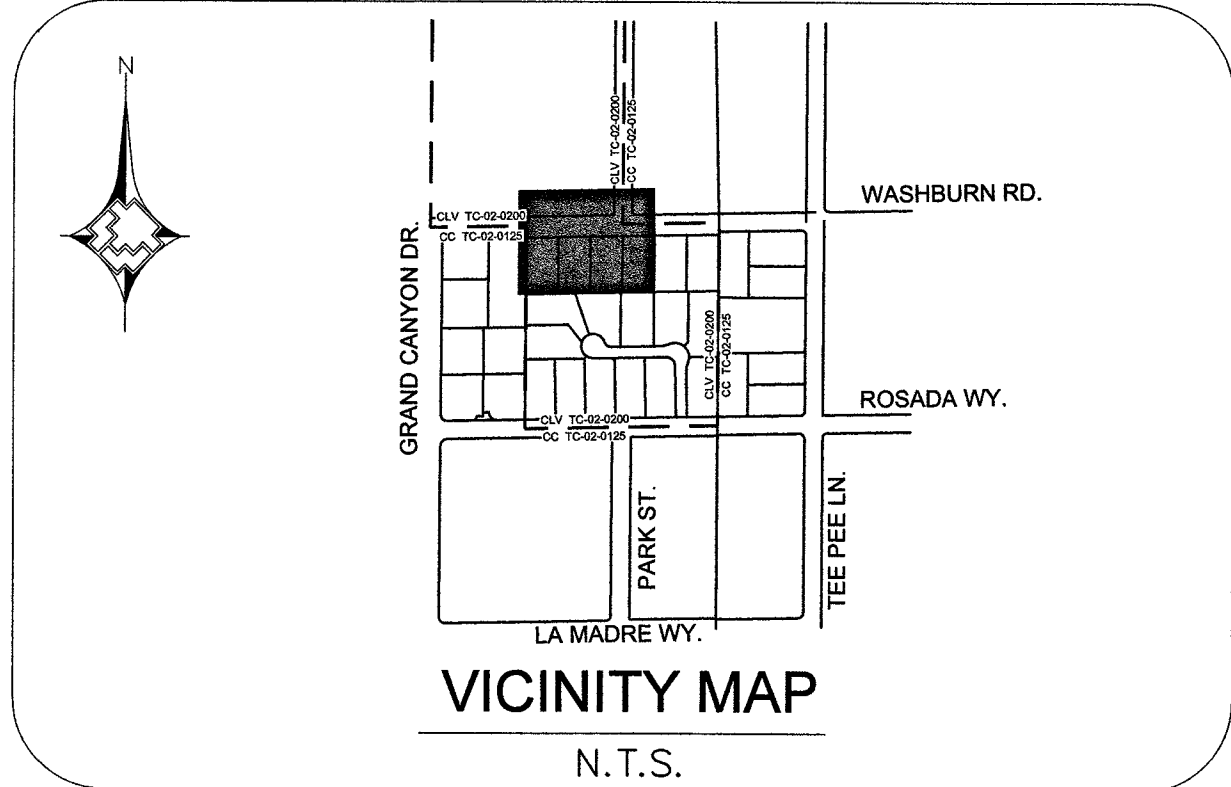
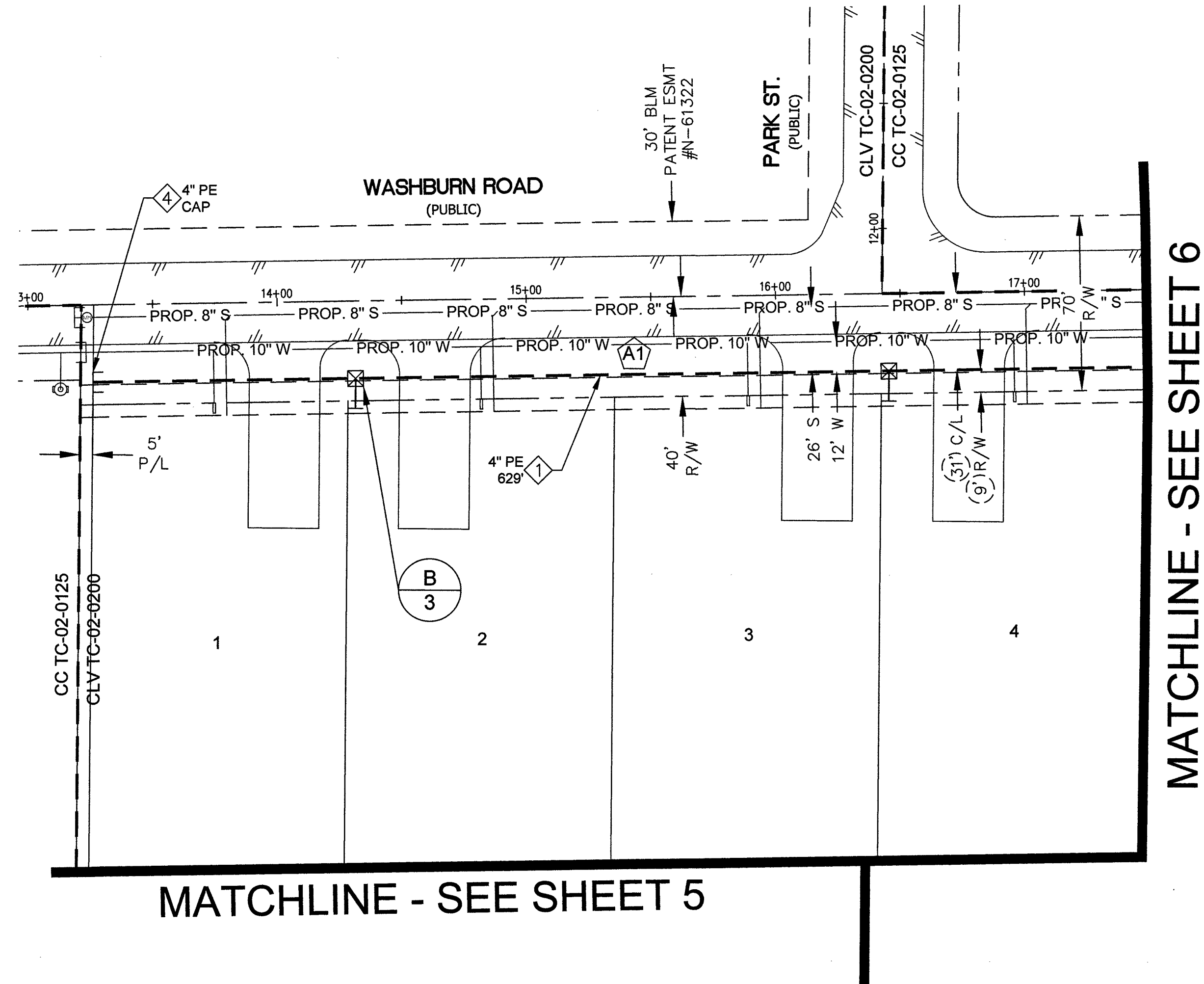
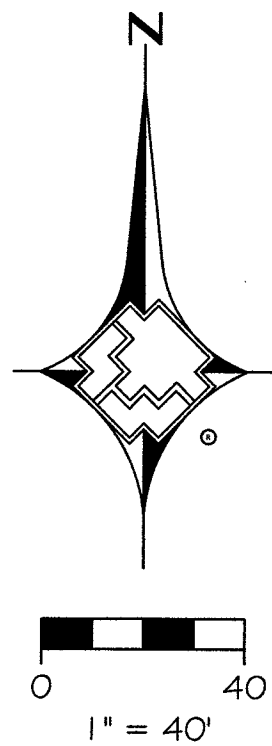


PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: _____ BY: _____

RTC NOTES:
PAVEMENT REPAIR SHALL CONFORM TO RTC:
A1 503

1. 2. 3. 4. NO. DESCRIPTION BY DATE APPVD. REVISIONS				TAX CODES UNIT NO. UNIT TYPE INSTL. PROPOSED RETIRED PROPOSED INSTL. COMPLETED RETIRED COMPLETED PROPERTY UNITS				AS-BUILT DRAWING-PRESSURE TEST DATA PIPE DIA. PIPE LENGTH PIPE TYPE MIN. DURATION TEST MEDIUM TEST METHOD TEST PRES. (PSIG) TIME DATE PERFORMED BY START END				VISUAL INSPECTION CERTIFICATION I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, JOINT CEMENT, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED. NAME DATE AS-BUILTS ACCEPTED BY POSTED BY POSTING QCD BY DATE DATE DATE				CONSTRUCTION INSPECTOR FOREMAN REVIEWED BY SEE SHEET 3 PERMIT INFORMATION CITY OF LAS VEGAS CLARK COUNTY TAX CODE 02-0200 # 02-0125				ISOLATION AREA ISO_21_DIST_296 W.R. NO. 3503456 LOCATION SEC 31 T19S R60E M.D.M ATLAS #/TILE # x582y546 x582y548				ENGINEER/TECHNICIAN RYAN STEMMERIK PHONE 702-365-2311 ACCOUNT REP. MAX HUGHES PHONE 702-755-6426 PROJECT CONTACT DAVE WAGNER SHEET NO. 6 OF 8 SCALE: 1"=40' DATE: 01/04/2018 DWN. BY SEI CHKD. BY APPVD. BY TITLE S GRAND CANYON AND ROSADA DESIGN PLAN L17-01670 107Y5070
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MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CLV 02-0200		
ITEM#	STOCK ID#	DESCRIPTION
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MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES CC 02-0125		
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**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: _____ BY: _____

NO.	DESCRIPTION	BY	DATE	APPVD.
REVISIONS				
SOUTHWEST GAS CORPORATION				

TAX CODES	UNIT NO.	UNIT TYPE	INSTL. PROPOSED	RETIRED COMPLETED
PROPERTY UNITS				

AS-BUILT DRAWING-PRESSURE TEST DATA	
PIPE DIA.	TEST MEDIUM
PIPE LENGTH	TEST METHOD
PIPE TYPE	GAUGE
MIN. DURATION	CHART
TEST PRES. (PSIG)	GAUGE/ PRESS REC SN#
TIME	START
DATE	END
PERFORMED BY	

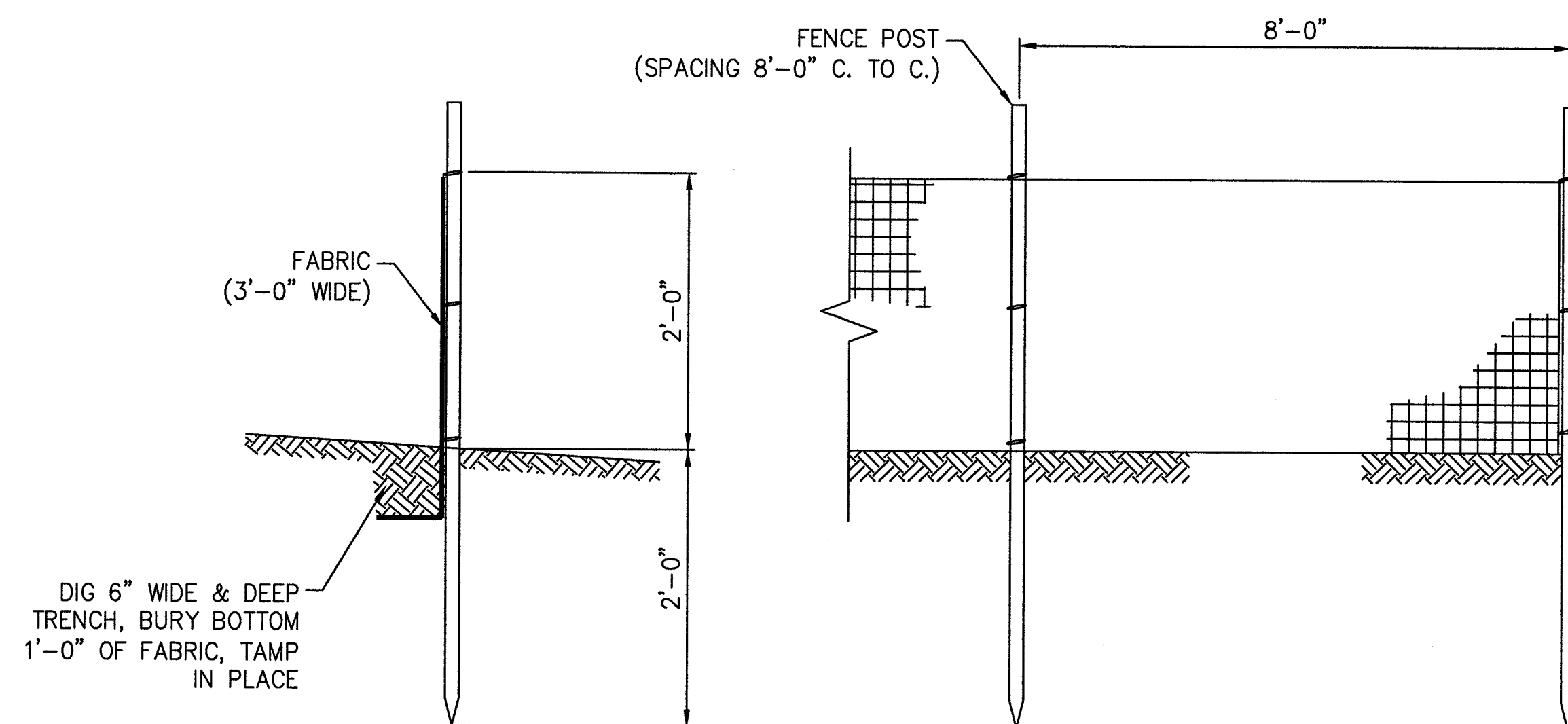
VISUAL INSPECTION CERTIFICATION	
I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, JOINTS, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED.	
NAME	DATE
INSPECTOR	
FOREMAN	
REVIEWED BY	
SEE SHEET 3	
AS-BUILTS ACCEPTED BY	DATE
POSTED BY	DATE
POSTING QCD BY	DATE

CONSTRUCTION	
INSPECTOR	
FOREMAN	
REVIEWED BY	
SEE SHEET 3	
PERMIT INFORMATION	
CITY OF LAS VEGAS CLARK COUNTY TAX CODE 02-0200 # 02-0125	

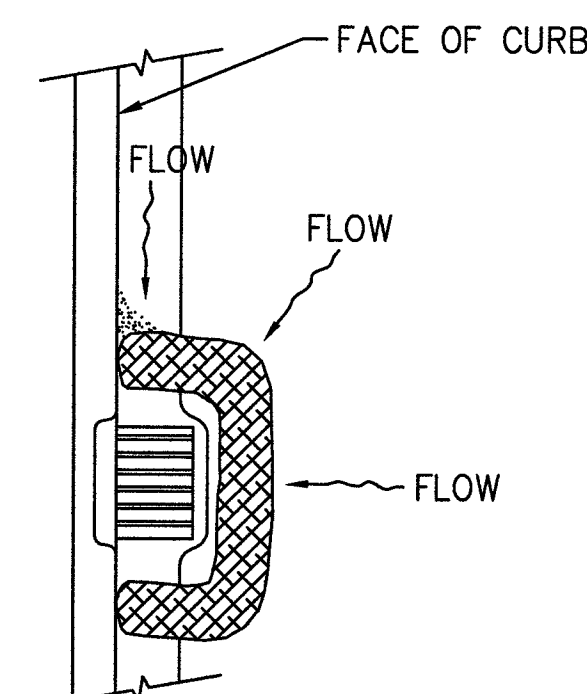
ISOLATION AREA	W.R. NO.
ISO_21_DIST_296	3503456
LOCATION	ATLAS #/TILE #
SEC 31 T19S R60E M.D.M	x582y546 x582y548

ENGINEER/TECHNICIAN RYAN STEMMERIK ACCOUNT REP. MAX HUGHES PROJECT CONTACT DAVE WAGNER SHEET NO. 7 OF 8 DWN. BY SEI	PHONE 702-365-2311 PHONE 702-755-6426 SCALE: 1"=40' CHKD. BY DATE: 01/04/2018 APPVD. BY
TITLE	
S GRAND CANYON AND ROSADA DESIGN PLAN	
L17-01670 107Y5070	

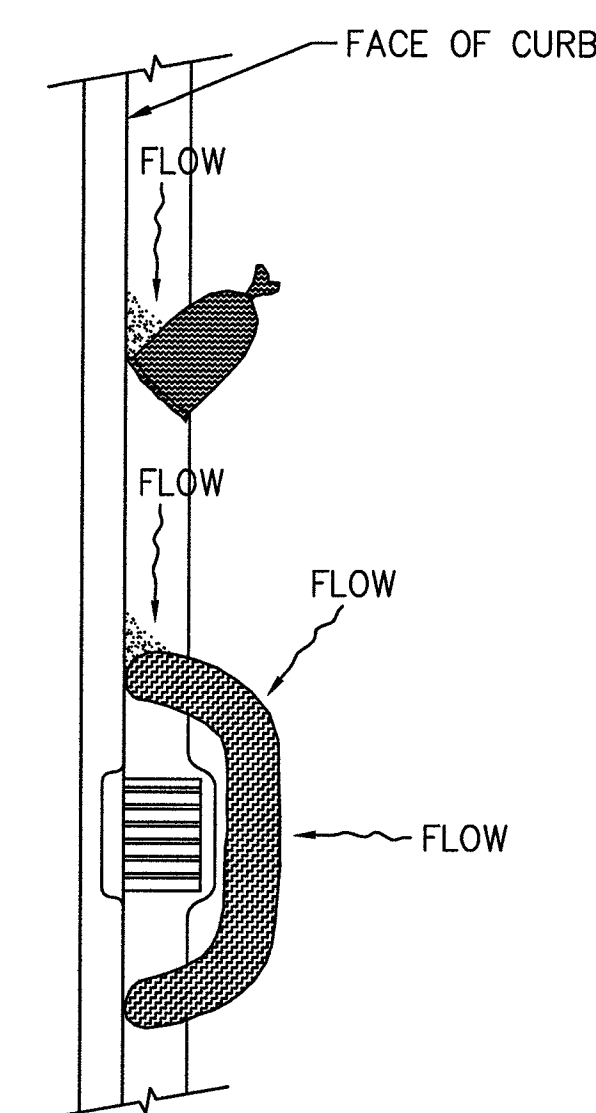
TYPICAL SWPPP BMP DETAILS



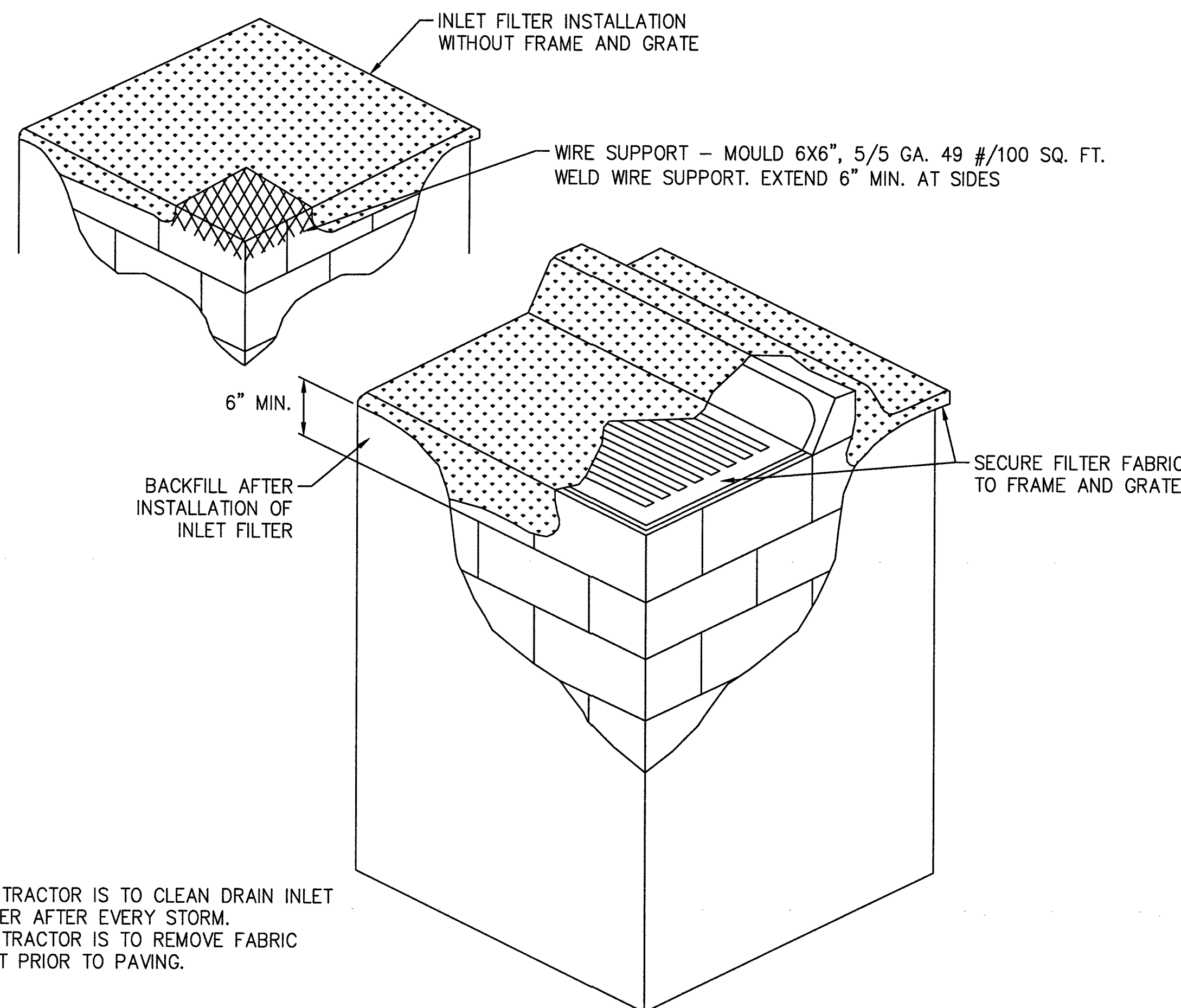
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-
SILT FENCE
N.T.S.



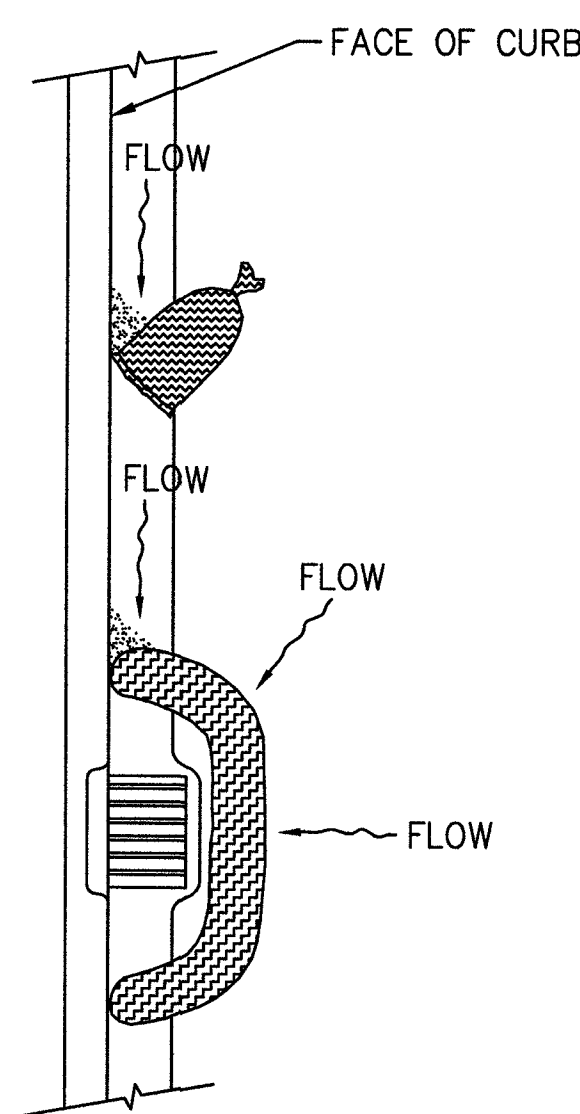
2 FIBER ROLL
- N.T.S.



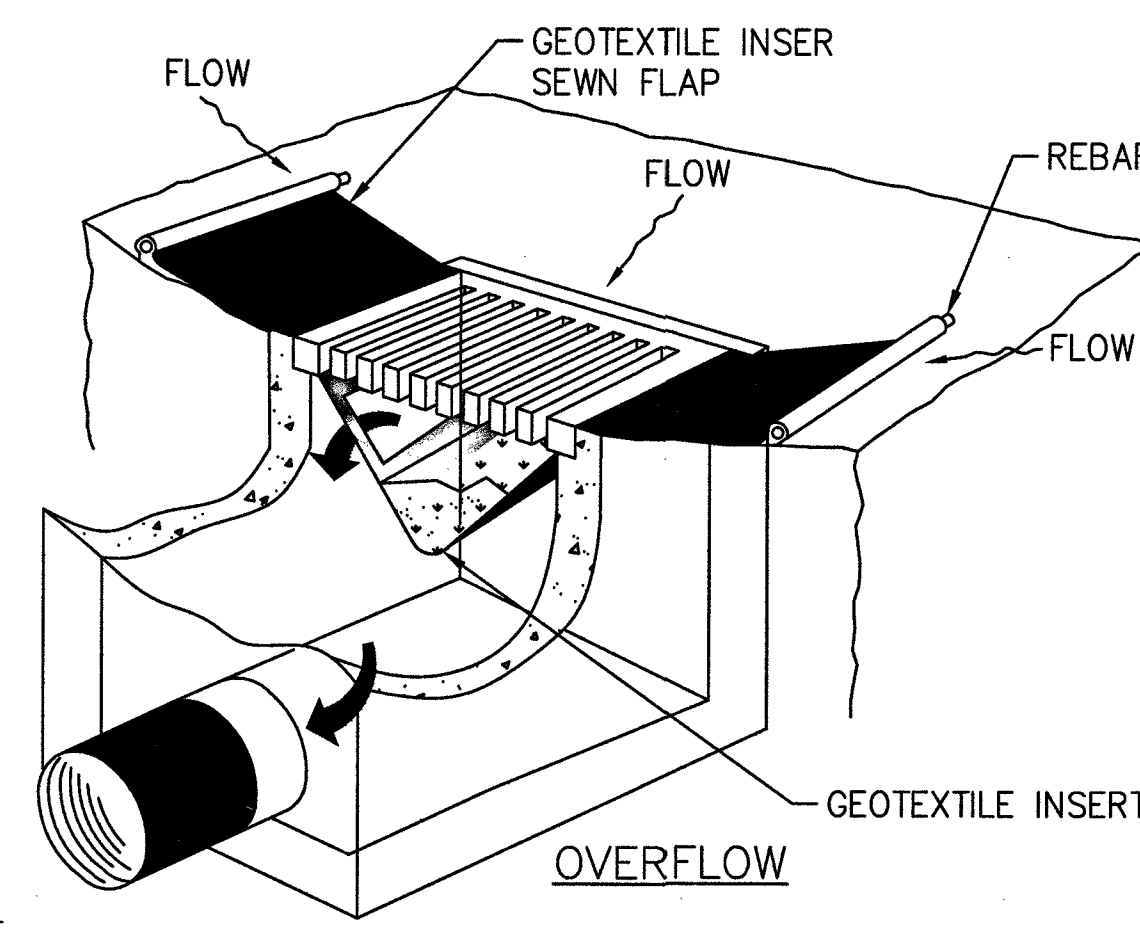
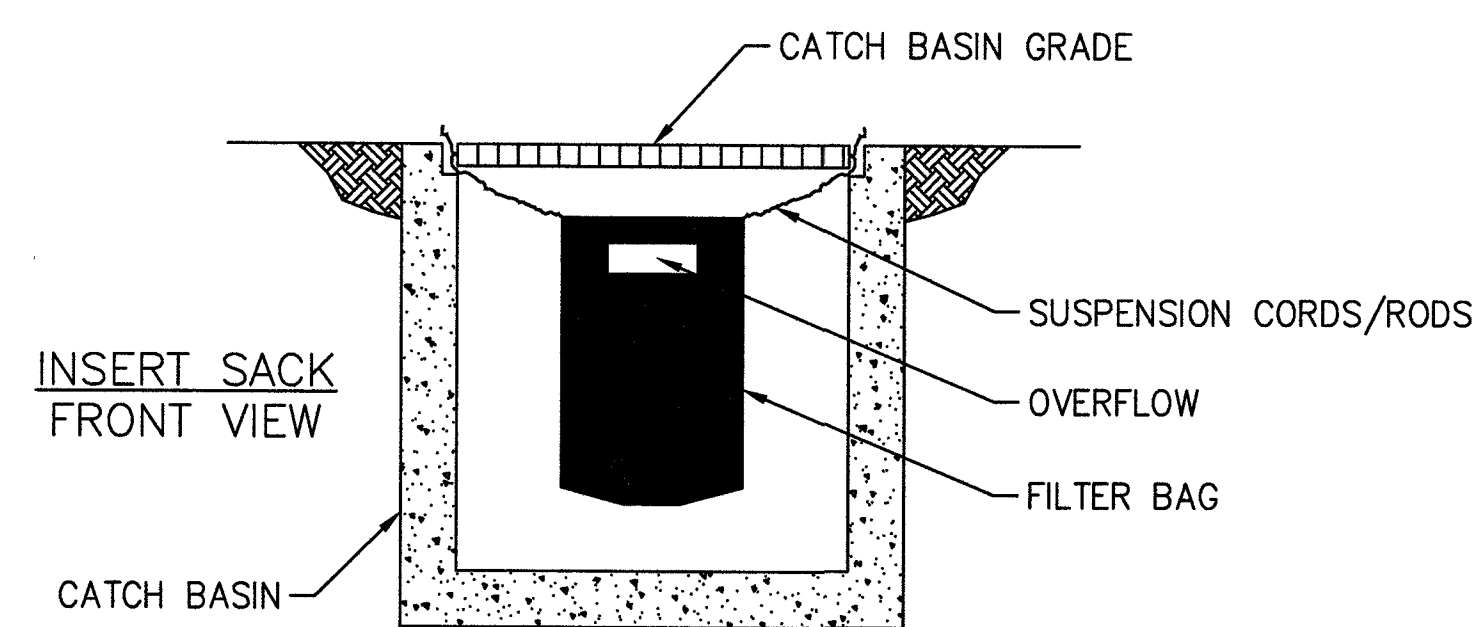
3 SAND BAG/ ROLL
- NTS



4 DRAIN INLET FILTER
- N.T.S.



5 GRAVEL BAG/ ROLL
- N.T.S.



6 SEDIMENT FILTER BAG
- NTS

-
- SWPPP NOTES**
-
1. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL INSTALL ONE OF THE APPROPRIATE BMPS FOR THE PROTECTION OF EXISTING STORM DRAIN INLETS, WITHIN OR SIGNIFICANTLY NEAR ANY IMPROVED RIGHT-OF-WAY, FROM DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION OF NATURAL GAS FACILITIES.
 2. SOUTHWEST GAS CORPORATION, IT'S 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, USING BEST MANAGEMENT PRACTICES DETAILED ON THIS SHEET.
 3. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE LISTED BMPS ON THIS SHEET DOT NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY CODE - CHAPTER 24.40/STORM SEWER SYSTEM DISCHARGE AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
 4. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

NOTE:

1. CONTRACTOR IS TO CLEAN DRAIN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR IS TO REMOVE FABRIC JUST PRIOR TO PAVING.

NOTE:
RECESSED CURB INLET MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS.
SIZE OF FILTER FABRIC INLET SACK TO BE DETERMINED BY MANUFACTURER.

**PRELIMINARY
NOT FOR
CONSTRUCTION**



Know what's **below**.
Call before you dig

DATE: BY:

[illegible]

10