

12/5/2018 10:50 AM
T:\CADD\18119 Drawings\Plan Drawings\18119-3-01-HC.dwg

UTILITY NOTE:

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

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

Avoid hitting overhead power lines. It's costly.



1-800-227-2800 1-702-432-5300 1-702-227-2929

LEGEND

CL OR SURVEY LINE
PROPERTY LINE
ROW LINE

EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:
EXISTING:
PROPOSED:

BUILDING OUTLINE
EDGE OF PAVEMENT

"A" TYPE CURBS
"L" TYPE CURBS

WALLS
CONTOUR LINES

AC PAVEMENT
CONCRETE

SPOT ELEVATIONS
SIGNS

MANHOLE W/ DESCRIPTION
MANHOLE DESCRIPTIONS

FIRE HYDRANTS
GATE VALVES

REDUCERS
CLEAN OUTS

UTILITY BOX OR VAULT
100w HPS STREETLIGHTS

150w HPS STREETLIGHTS
200w HPS STREETLIGHTS

250w HPS STREETLIGHTS
400w HPS STREETLIGHTS

107V7647

C3.02
SHEET 4 OF 7

OFFSITE No.
L18-02525

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	18.80'	N84°27'41"W
L2	1.59'	S29°59'26"W
L4	16.50'	N60°00'34"W
L5	117.50'	S29°59'26"W
L6	13.90'	S60°00'34"E
L8	0.69'	S53°42'06"W
L9	24.70'	S36°18'16"E
L11	8.41'	S60°00'34"E
L13	3.94'	S53°41'44"W
L14	14.71'	S60°00'00"E
L16	15.80'	N71°04'39"E
L17	16.71'	S84°27'41"E
L18	32.76'	N82°00'38"W
L20	36.96'	S19°56'59"W
L22	16.50'	S70°03'01"E
L23	70.00'	S19°56'59"W
L24	7.00'	S70°03'01"E
L25	16.00'	S19°56'59"W
L26	11.63'	N70°03'01"W
L27	5.37'	S11°40'24"W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L29	65.56'	N53°42'06"E
L31	37.96'	N30°00'00"E
L33	8.79'	N07°59'48"E
L34	53.55'	N07°59'48"E
L35	24.56'	N07°59'48"E
L36	54.54'	N53°42'06"E
L38	44.41'	N06°25'33"E
L40	16.73'	N36°45'03"E
L42	15.14'	N07°59'48"E
L43	26.00'	N53°42'06"E
L44	71.28'	N53°42'06"E
L46	9.94'	N06°25'33"E
L48	13.77'	S30°00'00"W
L50	41.67'	S53°42'06"W
L51	28.00'	N53°42'06"E
L52	3.32'	N36°15'50"W
L54	9.28'	S53°41'44"W
L55	116.00'	N36°18'16"W
L56	0.50'	N53°41'44"E
L97	20.55'	N15°59'37"W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L98	36.16'	N05°12'10"W
L99	5.52'	N05°31'55"W
L100	8.00'	S84°28'05"W
L101	12.25'	N05°31'55"W
L102	37.00'	S84°28'05"W
L103	17.72'	S05°31'55"E
L104	17.72'	N05°31'55"W
L105	55.00'	S84°28'05"W
L106	17.72'	S05°31'55"E
L107	17.72'	N05°31'55"W
L108	69.00'	S84°28'05"W
L109	23.34'	S05°31'55"E
L110	17.75'	S81°46'50"W
L111	16.50'	N79°46'59"E
L112	16.49'	S79°33'16"W
L113	16.51'	N77°56'59"E
L114	16.51'	S77°43'16"W
L115	17.01'	N75°45'25"E
L116	22.04'	S15°59'38"E
L117	64.00'	N74°00'22"E

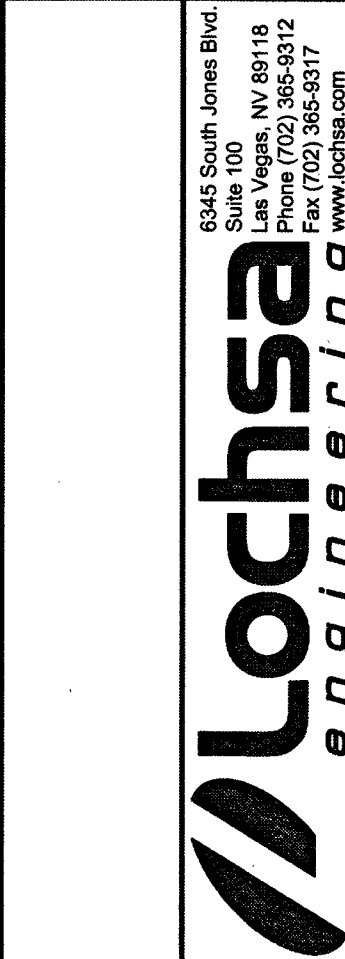
CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C3	2.36'	1.50'	090°00'00"	1.50'
C4	2.98'	1.50'	113°42'40"	2.30'
C5	21.72'	52.50'	023°42'18"	11.02'
C6	2.98'	1.50'	113°42'18"	2.30'
C7	22.41'	52.50'	024°27'41"	11.38'
C8	2.98'	1.50'	113°40'19"	2.30'
C9	3.01'	1.50'	114°51'04"	2.35'
C10	22.41'	52.50'	024°27'41"	11.38'
C11	1.49'	10.50'	008°07'02"	0.75'
C12	24.06'	1362.70'	001°00'43"	12.03'
C13	4.62'	1362.70'	000°11'40"	2.31'
C14	6.13'	4.50'	078°02'24"	3.65'
C15	2.36'	1.50'	090°00'00"	1.50'
C16	10.84'	4.50'	137°58'18"	11.71'
C17	6.00'	14.50'	023°42'06"	3.04'
C18	5.57'	14.50'	022°00'12"	2.82'
C19	3.01'	1.50'	114°52'01"	2.35'
C20	11.96'	14.50'	047°16'33"	6.35'
C21	7.67'	14.50'	030°19'30"	3.93'
C22	7.78'	15.50'	028°45'15"	3.97'

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C23	2.51'	1.50'	095°54'54"	1.66'
C24	11.96'	14.50'	047°16'33"	6.35'
C25	1.37'	0.50'	156°25'33"	2.40'
C26	6.00'	14.50'	023°42'06"	3.04'
C27	9.42'	3.00'	180°00'00"	INFINITY
C29	2.36'	1.50'	090°02'26"	1.50'
C57	15.68'	10.00'	089°50'05"	9.97'
C58	19.78'	105.00'	010°47'27"	9.92'
C59	75.58'	52.50'	082°29'18"	46.03'
C60	4.30'	3.00'	082°09'33"	2.62'
C61	7.85'	2.50'	180°00'03"	395630.52'
C62	7.85'	2.50'	180°00'02"	418806.80'
C63	3.81'	2.50'	087°18'45"	2.39'
C64	46.63'	1331.09'	002°00'26"	23.32'
C65	7.87'	2.51'	179°57'04"	5879.66'
C66	37.52'	1331.09'	001°36'54"	18.76'
C67	7.84'	2.50'	179°44'17"	1092.84'
C68	46.63'	1331.09'	002°00'26"	23.32'
C69	3.85'	2.50'	088°14'57"	2.42'
C70	7.85'	2.50'	180°00'00"	INFINITY

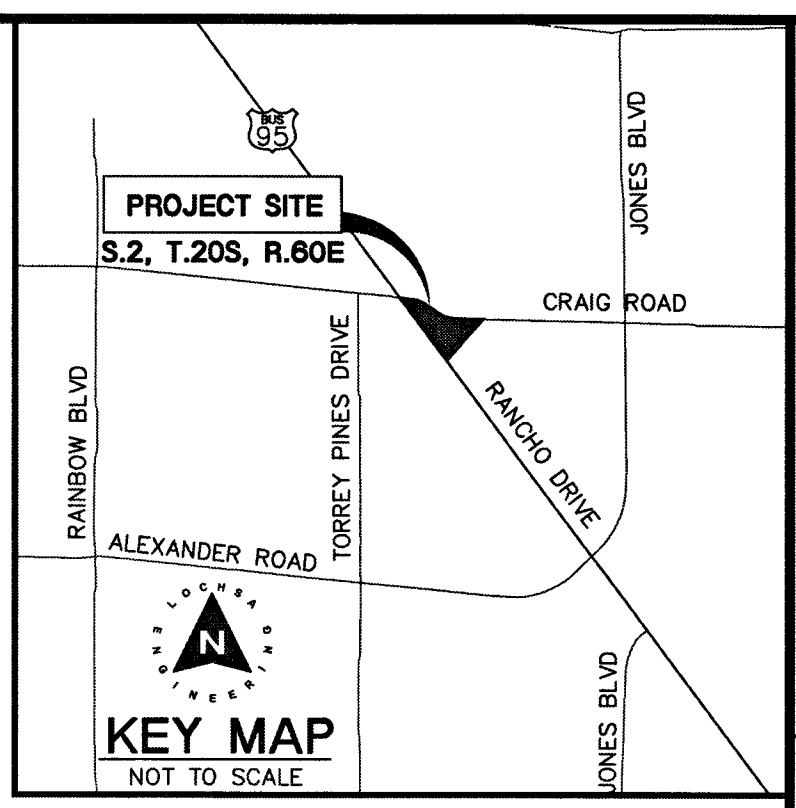
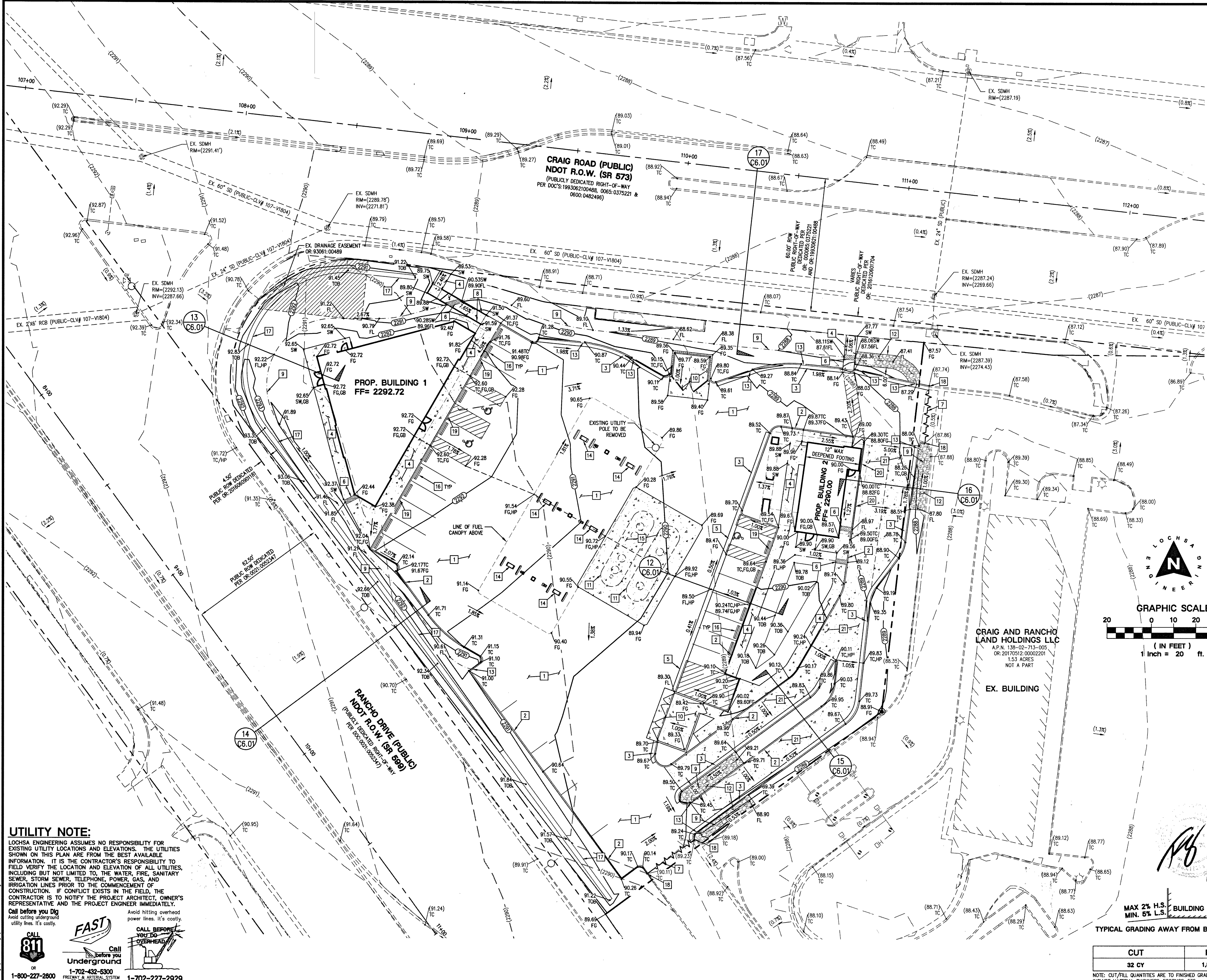
CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C71	3.93'	2.50'	090°00'01"	2.50'
C72	3.93'	2.50'	090°00'00"	2.50'
C73	4.23'	2.50'	096°53'02"	2.82'
C74	85.91'	27.50'	178°59'37"	3131.14'
C75	24.48'	130.00'	010°47'27"	12.28'
C76	15.26'	10.00'	087°26'14"	9.96'
C77	4.17'	2.50'	095°32'54"	2.75'
C78	3.93'	2.50'	090°00'00"	2.50'
C79	35.68'	27.50'	074°20'01"	20.85'
C80	4.61'	2.50'	105°39'59"	3.30'
C81	3.93'	2.50'	090°00'00"	2.50'
C82	9.36'	9.50'	056°26'45"	5.10'
C83	1.35'	9.50'	008°09'27"	0.68'

IMPROVEMENT PLANS
LINE & CURVE TABLES

7-11 © CRAIG & RANCHO
SITE IMPROVEMENTS
LAS VEGAS, NEVADA



SHEET	181119
DATE:	10/01/18
SCALE:	NTS
DRAWN BY:	BJB
DESIGNED BY:	BJB
CHECKED BY:	TTE
PROFESSIONAL ENGINEER - STATE OF NEVADA	No. 11286
12/5/18	
SHEET No.	C3.02
OFFSITE No.	L18-02525



- CONSTRUCTION NOTES:**
- 1. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (C.C.A.U.S.D.)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
 - 2. NOT ALL NOTES USED ON THIS SHEET -
 - 3. CONSTRUCT AC PAVEMENT PER DETAIL 2 ON C6.01.
 - 4. CONSTRUCT "A" TYPE CURB PER DETAIL 1 ON C6.01.
 - 5. CONSTRUCT "1" TYPE CURB PER DETAIL 1 ON C6.01.
 - 6. CONSTRUCT CONC. SIDEWALK PER DETAIL 9 ON C6.01. REFER TO ARCH. PLANS FOR FINISHING SPECIFICATIONS.
 - 7. CONSTRUCT 2" VALLEY GUTTER PER DETAIL 3 ON C6.01.
 - 8. CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD. No. 236.
 - 9. SAWCUT AND MATCH EXISTING.
 - 10. HANDRAIL PER ARCHITECTURAL PLANS.
 - 11. CONSTRUCT GRADED LANDSCAPE SWALE, SLOPE PER PLAN.
 - 12. TRASH ENCLOSURE PER ARCHITECTURAL PLANS.
 - 13. UNDERGROUND FUEL TANK BY OTHERS.
 - 14. INSTALL RIP-RAP BMP AREA, SIZE PER PLAN. DRAIN=3", TH=6". SEE DETAIL 4 ON C6.01.
 - 15. 2" CURB OPENING PER DETAIL 6, SHEET C6.01.
 - 16. FUELING STATION BY OTHERS.
 - 17. CONCRETE PAVEMENT OVER UNDERGROUND FUEL TANKS PER DETAIL 9 ON C6.01.
 - 18. INSTALL WHEEL STOP PER DETAIL 10 ON C6.01.
 - 19. CONSTRUCT 18" HIGH LANDSCAPE BERM.
 - 20. CONNECT TO EXISTING CURB & GUTTER.
 - 21. CONSTRUCT 0" "A" CURB PER DETAIL 1 ON C6.01.
 - 22. CONSTRUCT TURNED DOWN SIDEWALK PER DETAIL 8 ON C6.01.
 - 23. INSTALL BLACK CONCRETE SURFACE. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.
- GRADING NOTES:**
- 1. SLOPES 4:1 OR STEEPER AND FINE-GRAINED MATERIALS THAT HAVE BEEN DISTURBED (SANDY AND SILTY MATERIALS) SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICATIONS OR THE SOILS REPORT.
 - 2. CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXCAVATION QUANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOULD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
 - 3. CONTRACTOR SHALL NOTIFY LOCHSA ENGINEERING WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. LOCHSA ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.
 - 4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. NO PONDING ALLOWED. CONTRACTOR TO FOLLOW RECOMMENDATIONS AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING AND COMPACTION. REFER TO THE REPORT PREPARED BY NINYO & MOORE, PROJECT No. 304289001.
- EXISTING UTILITY NOTE:**
- CONTRACTOR TO ADJUST ALL EXISTING UTILITIES TO MATCH PROPOSED FINISH GRADE ELEVATIONS.
- FLOOD ZONE NOTE:**
- THE PROJECT SITE IS COVERED BY THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE CLARK COUNTY AND INCORPORATED AREAS, NEVADA, COMMUNITY PANEL NUMBER: 3000322155, EFFECTIVE DATE: NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED JUNE 21, 2017. THE PROJECT SITE IS WITHIN ZONE "X" (UNSHADED), DESCRIBED BY FEMA AS: "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."
- LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES GUIDANCE MANUAL SECTION 3.5.1 STANDARD NOTES 1-5**
- 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 RIGHT-OF-WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
 - 2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
 - 3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR10000, 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 OR 0.5 INCHES OR MORE OF MOISTURE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR10000, SECTION III.A.12.
 - 5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.
- GRADING PLAN CERTIFICATION**
- NAME: TED J. EGERTON PE #11286 DATE: 11/13/19
- CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.
- 11286 12/5/18
- 107V7647

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Call before you Dig
Avoid cutting overhead power lines. It's costly.

FAST
Call before you Dig
Underground

1-800-227-2800
1-702-432-5300
1-702-227-2929

LEGEND	CL OR SURVEY LINE	EASEMENT LINE	DESCRIPTION:	BUILDING OUTLINE	EDGE OF PAVEMENT	"A" TYPE CURBS	"1" TYPE CURBS	WALLS	CONTOUR LINES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	100W HPS STREETLIGHTS	150W HPS STREETLIGHTS	200W HPS STREETLIGHTS	250W HPS STREETLIGHTS	400W HPS STREETLIGHTS
	PROPERTY LINE	SAWCUT LINE	EXISTING:						(2210)			(12.33)		⊙	⊙ = SANITARY SEWER ⊙ = STORM DRAIN ⊙ = ELECTRICAL ⊙ = TELEPHONE		⊙	▷	○	□	○	○	○	○	○
	ROW LINE	SCARP LINE	PROPOSED:						(2122)			(12.34)		⊙											

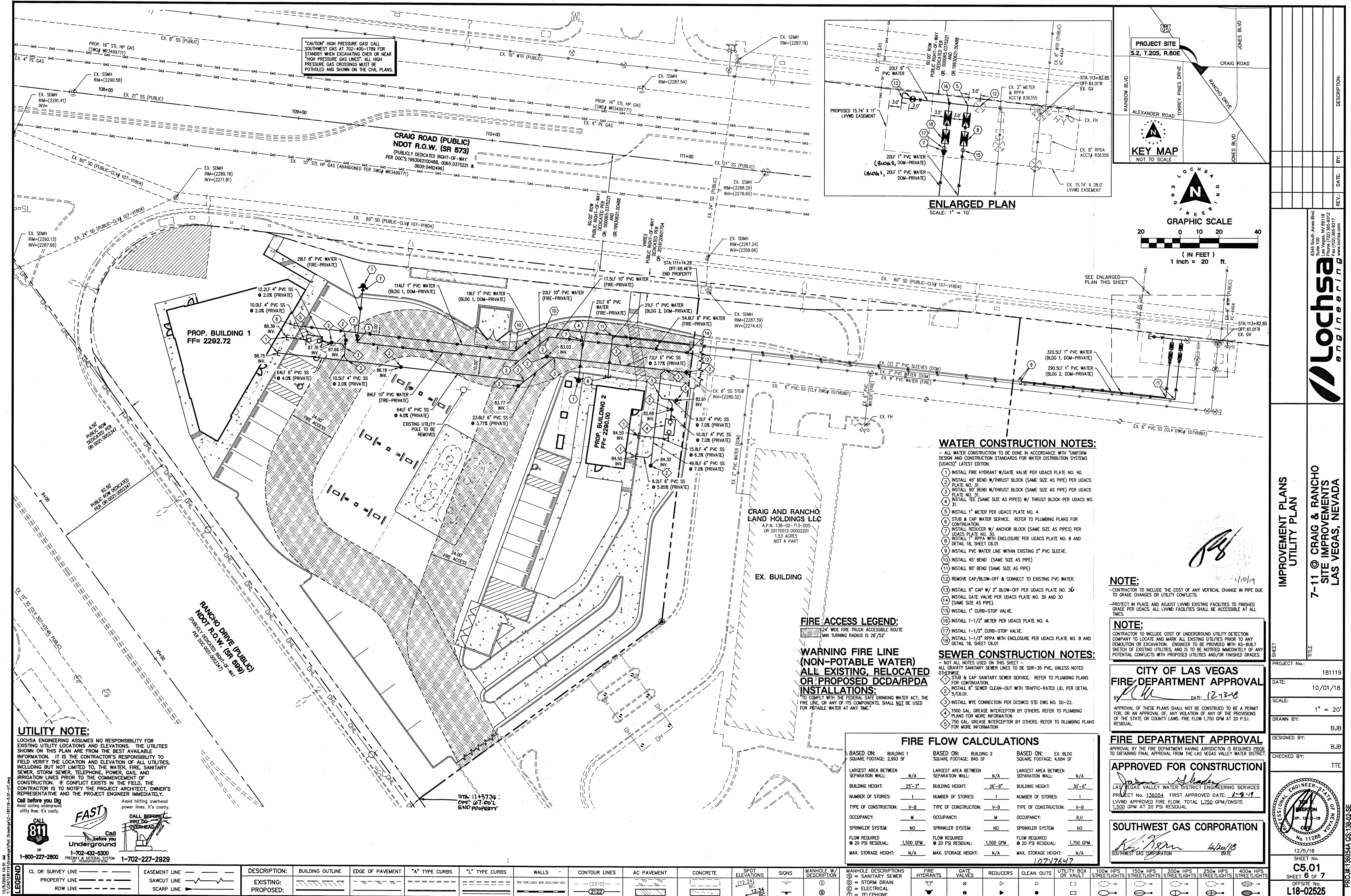
7-11 © CRAIG & RANCHO
SITE IMPROVEMENTS
LAS VEGAS, NEVADA

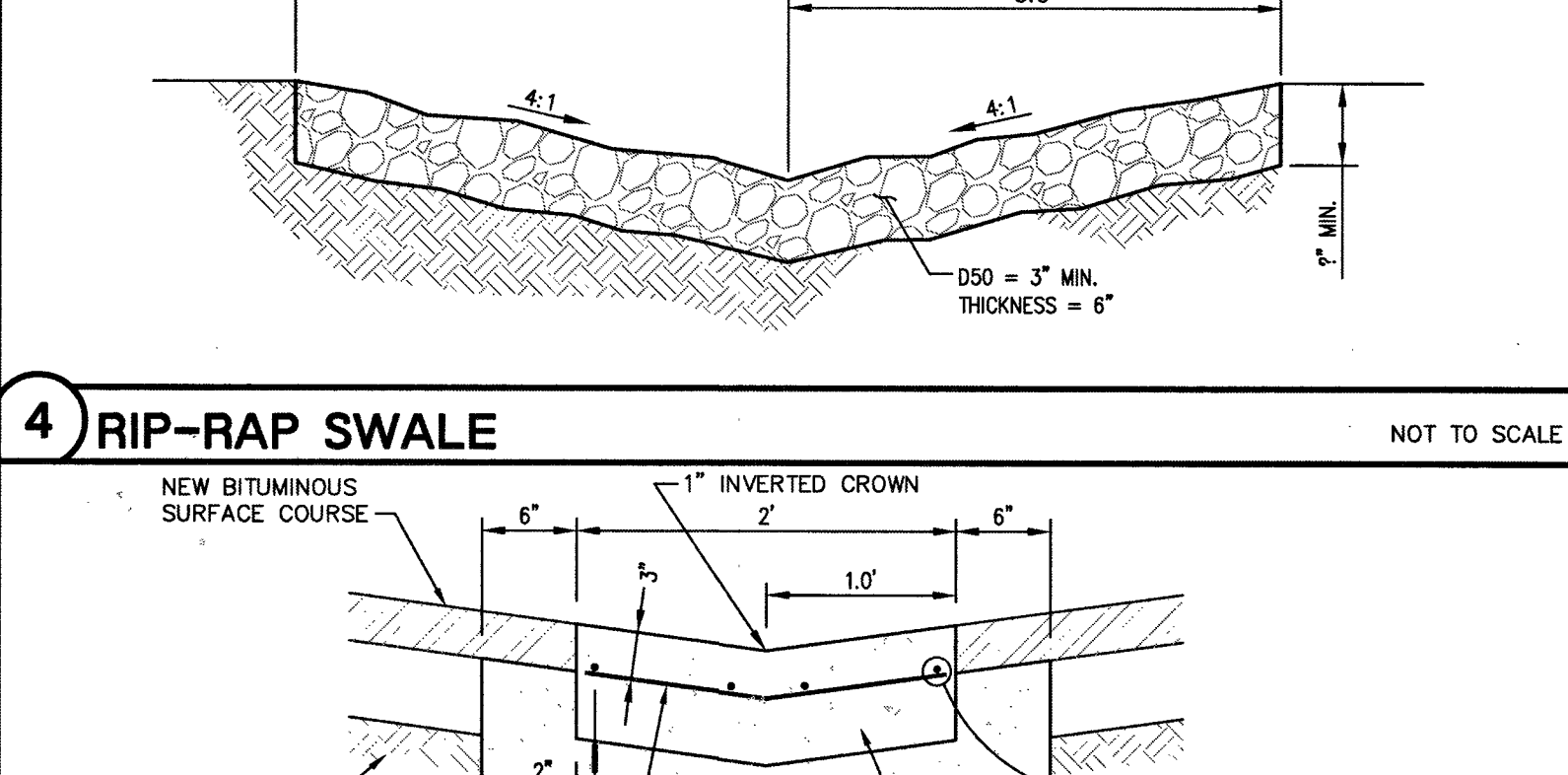
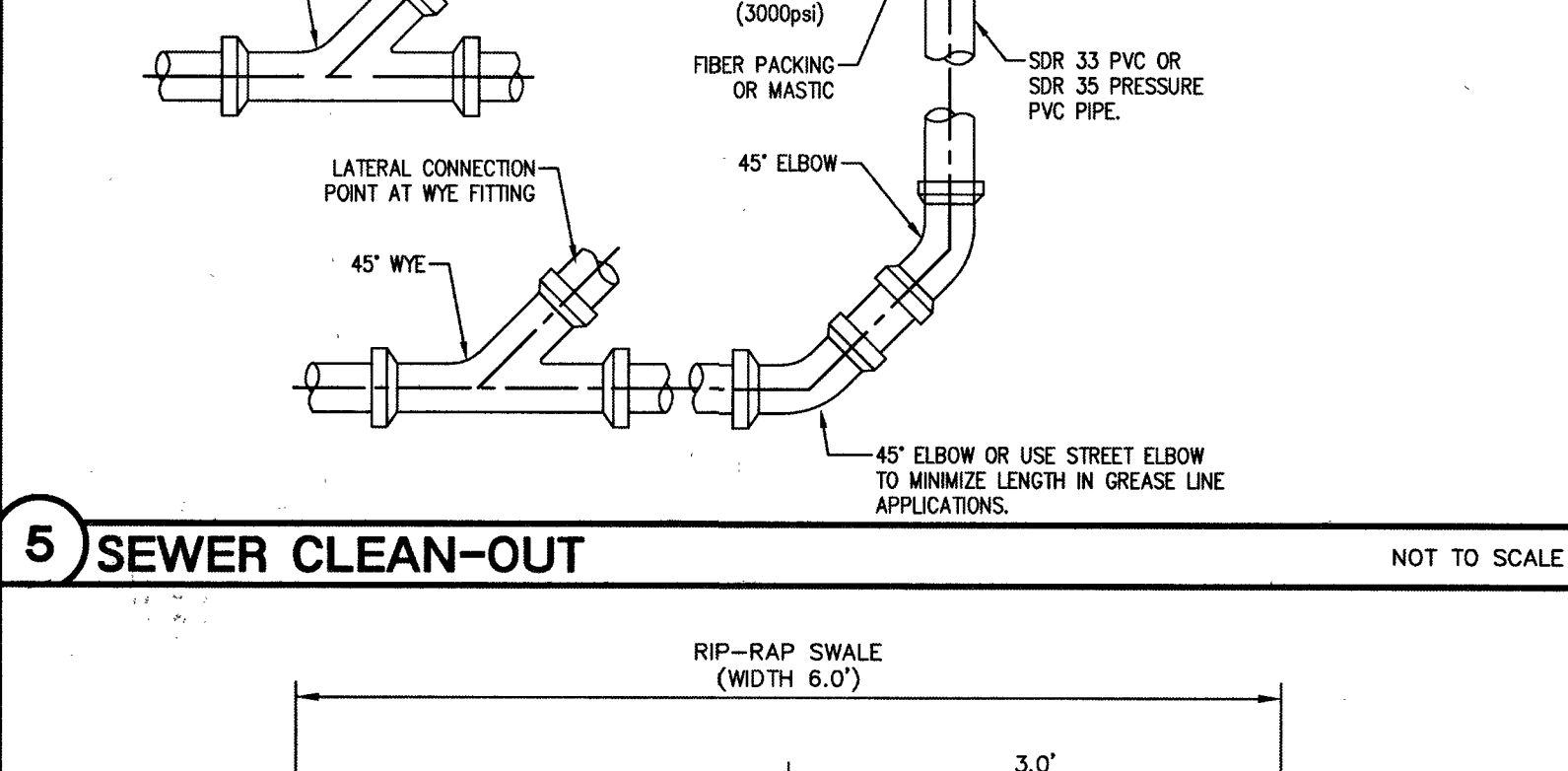
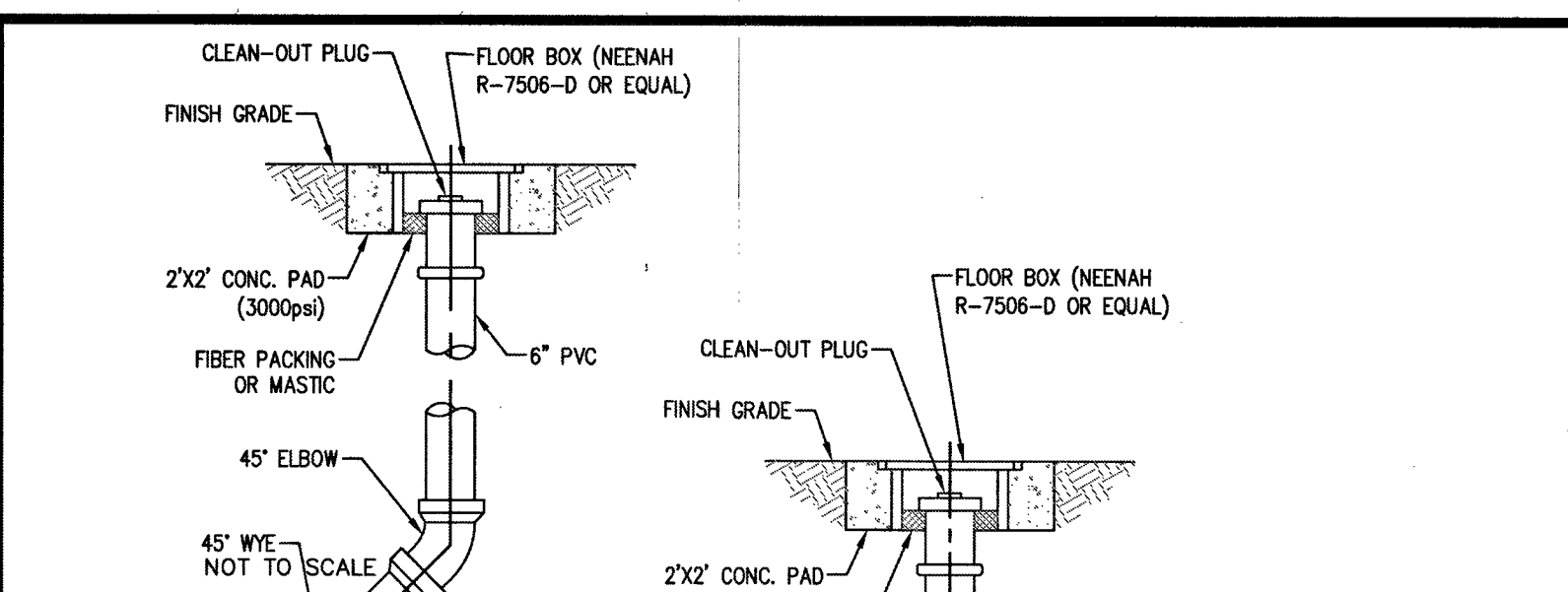
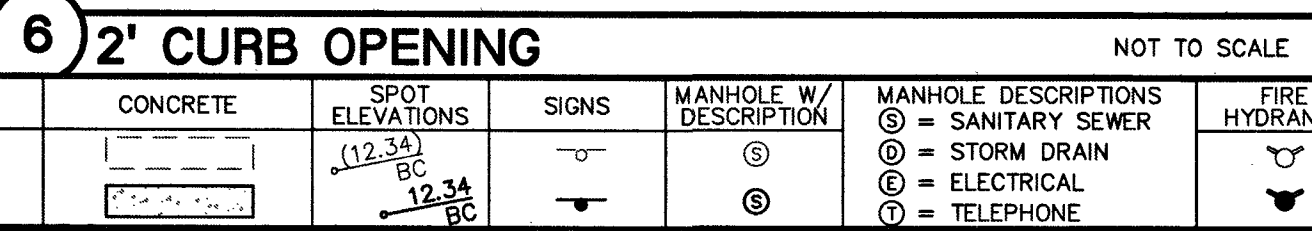
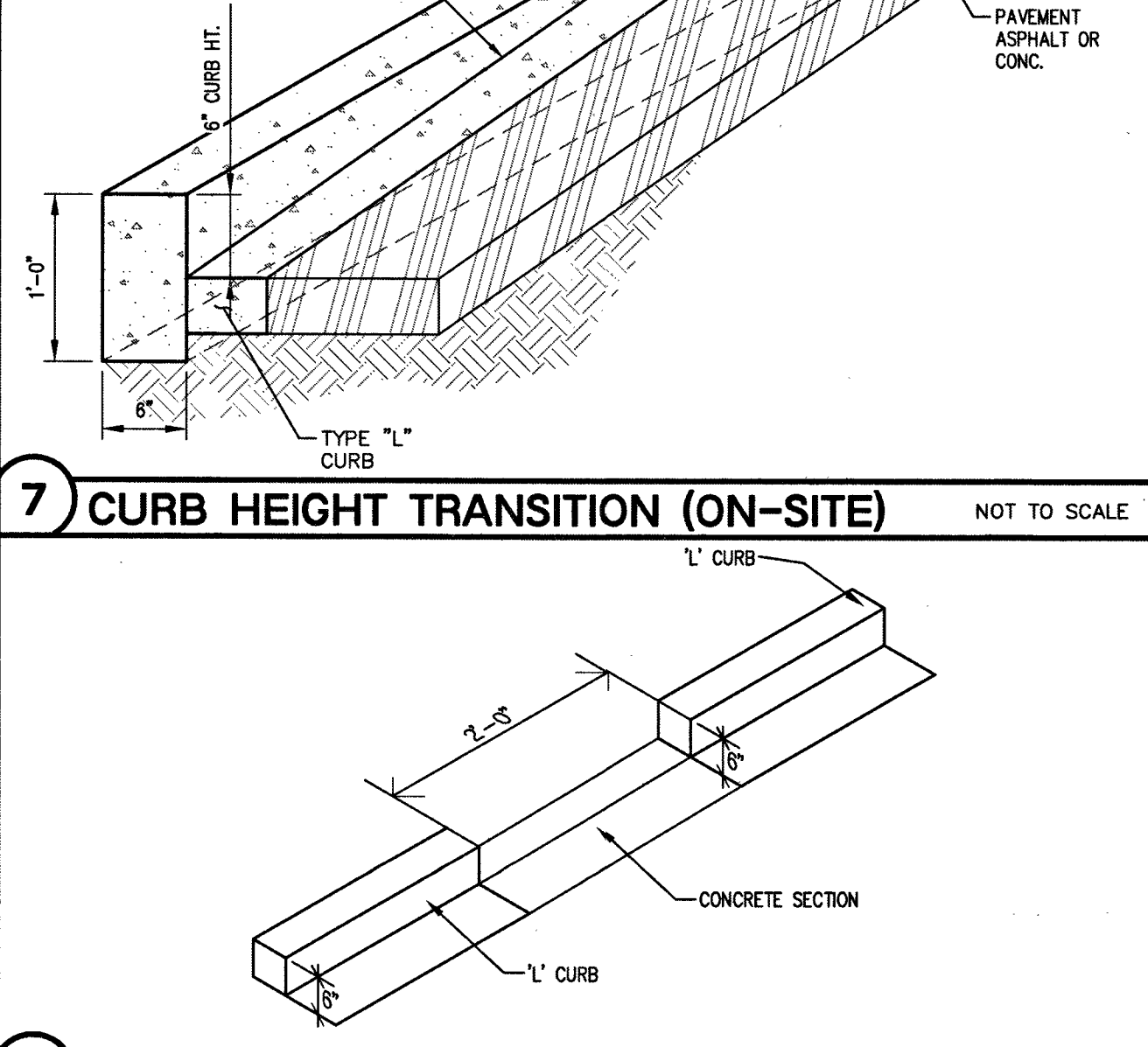
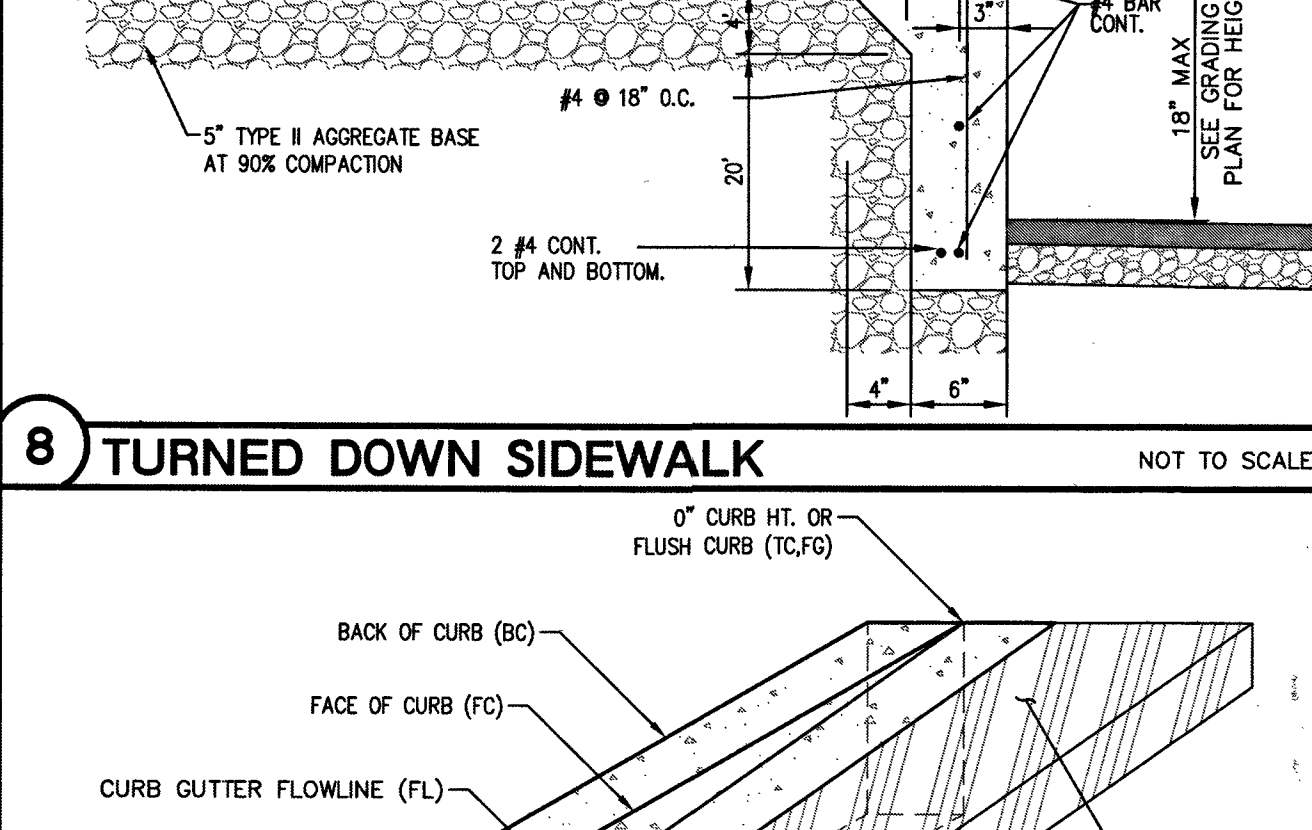
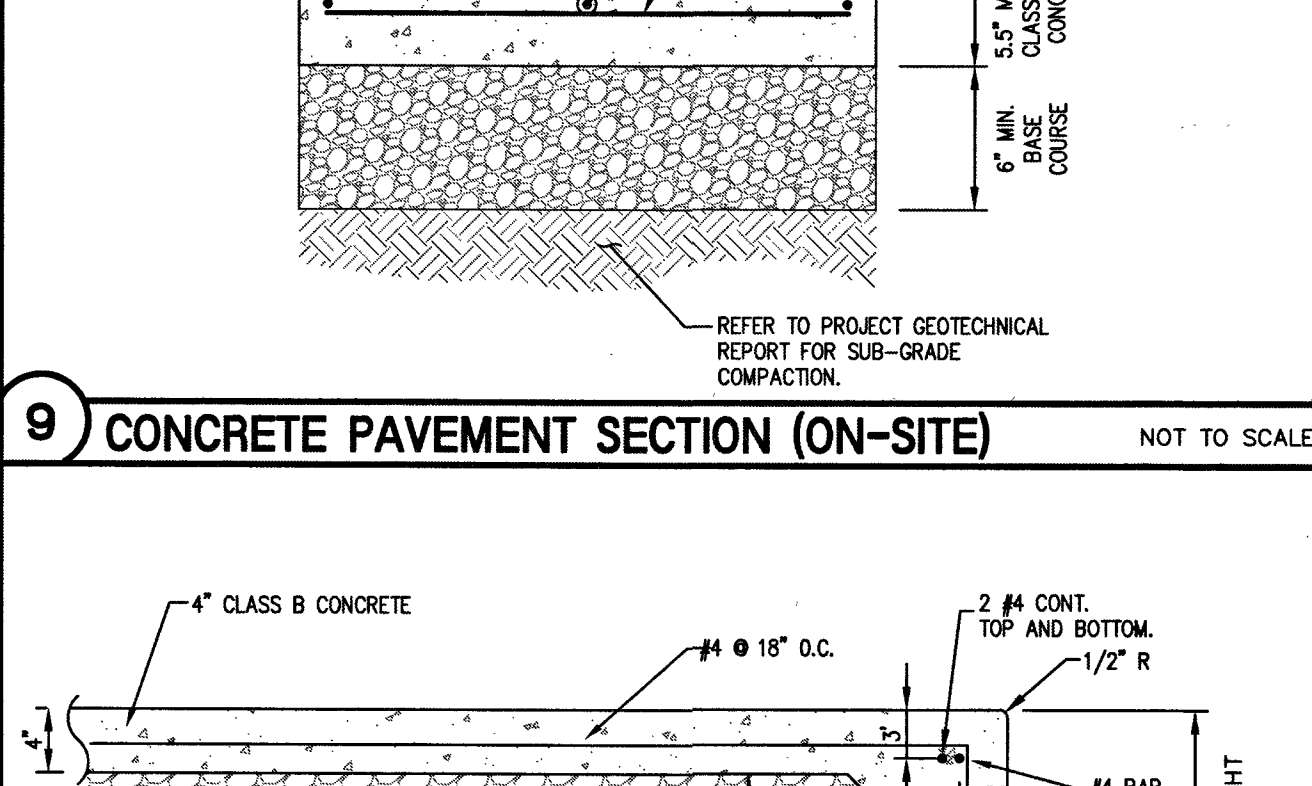
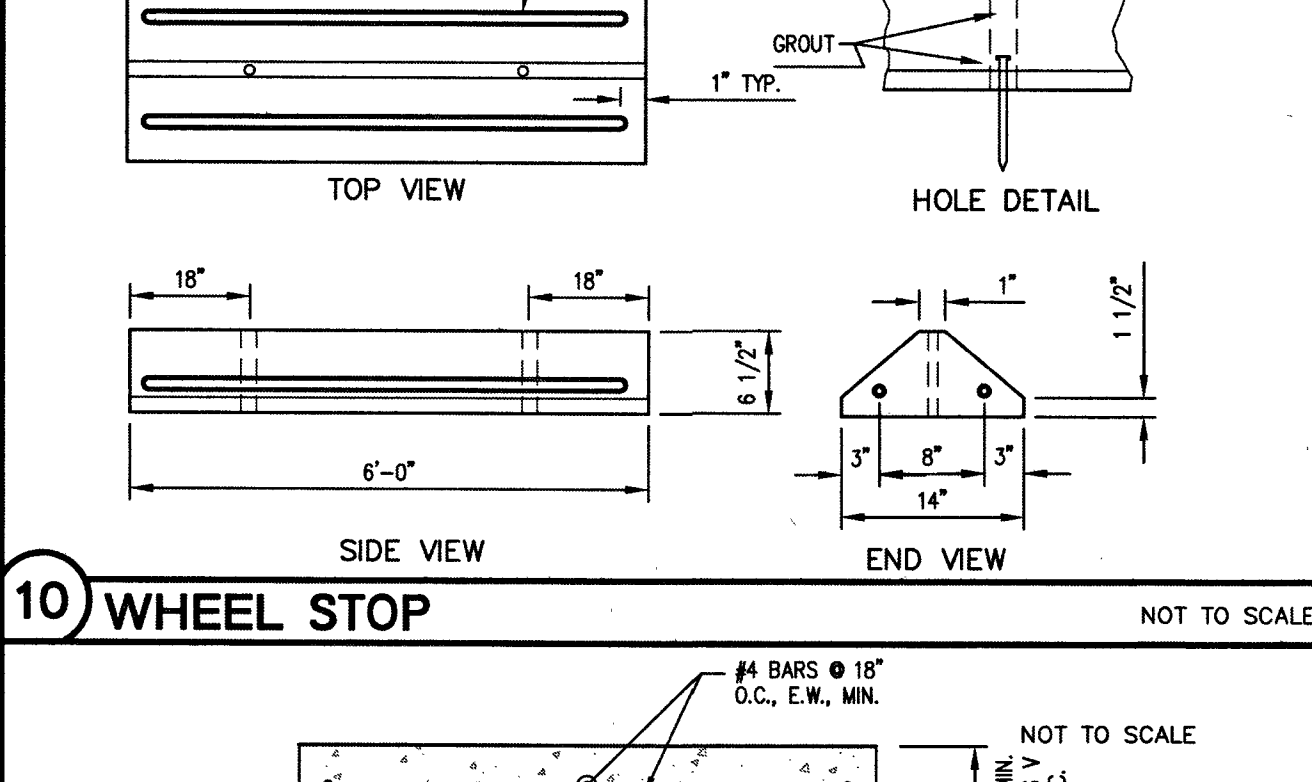
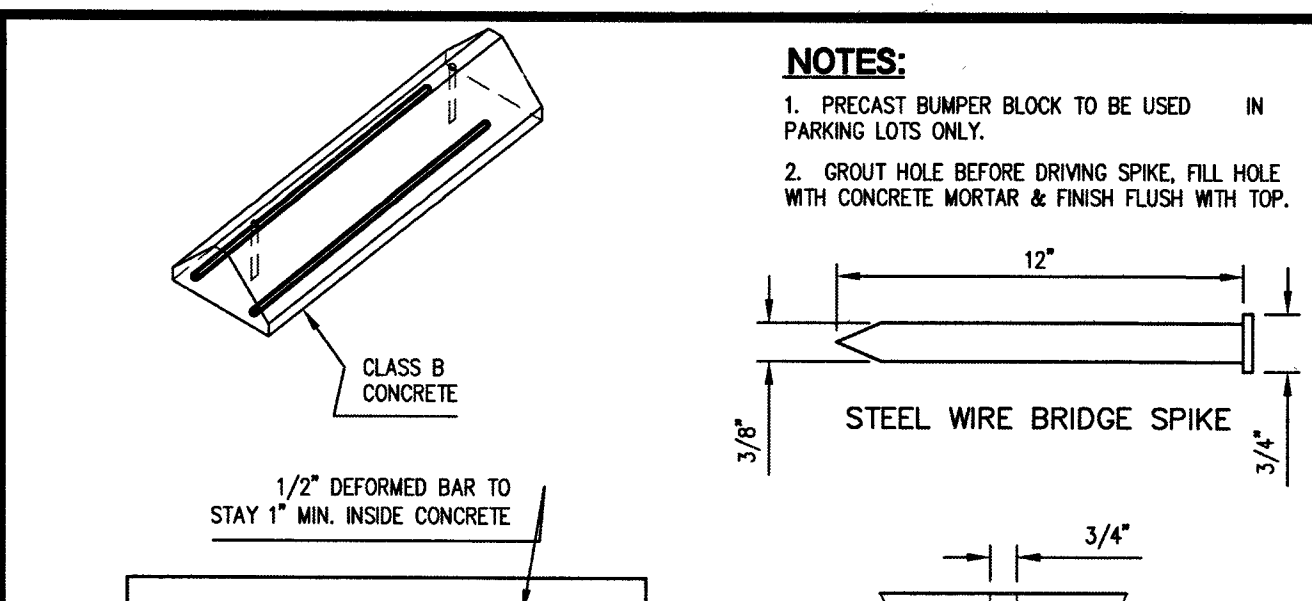
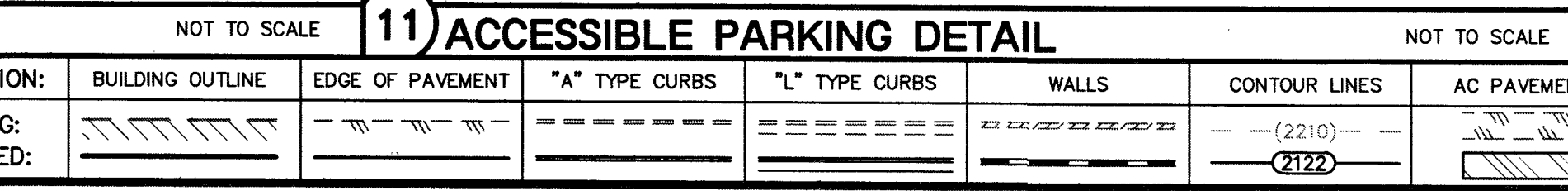
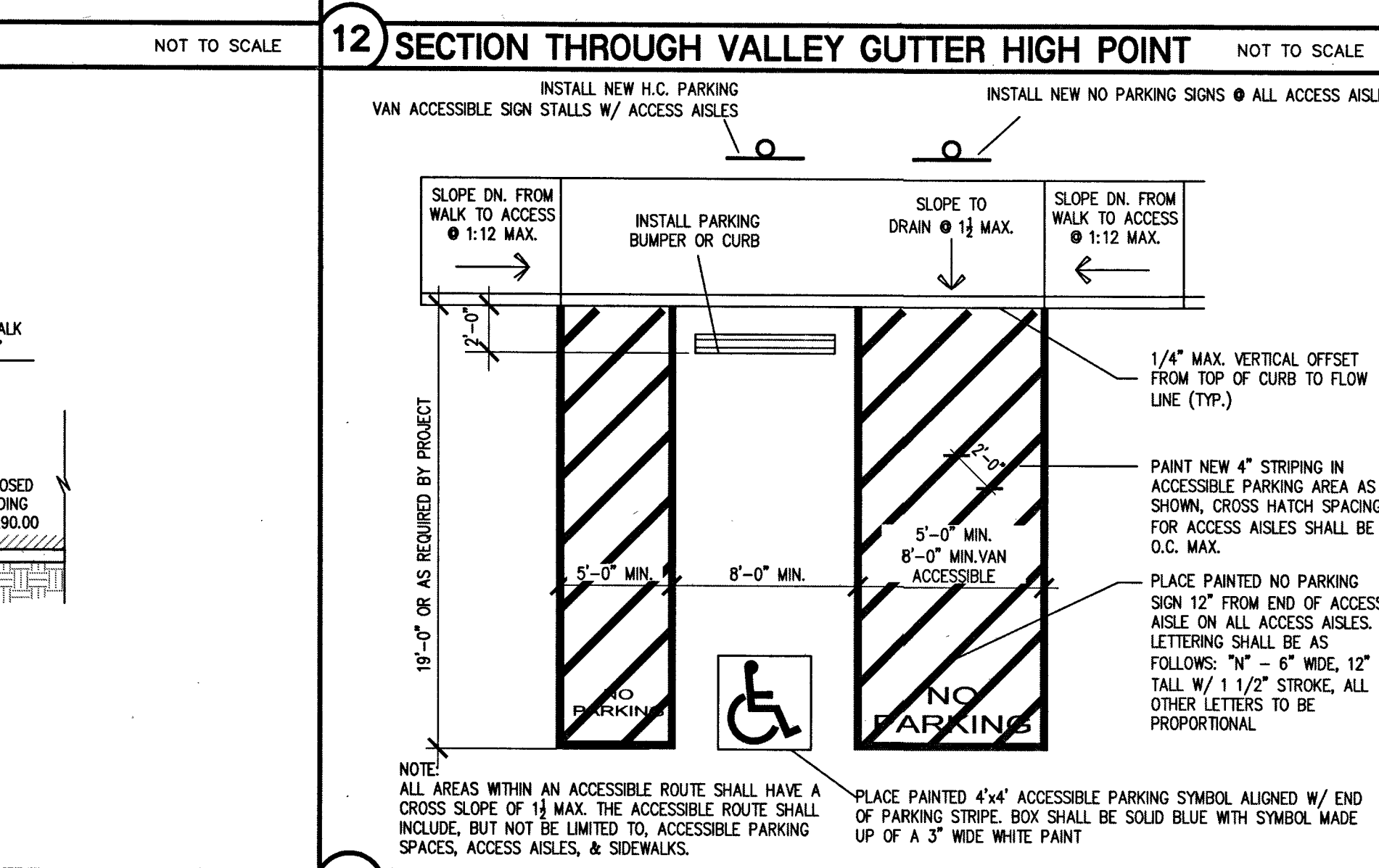
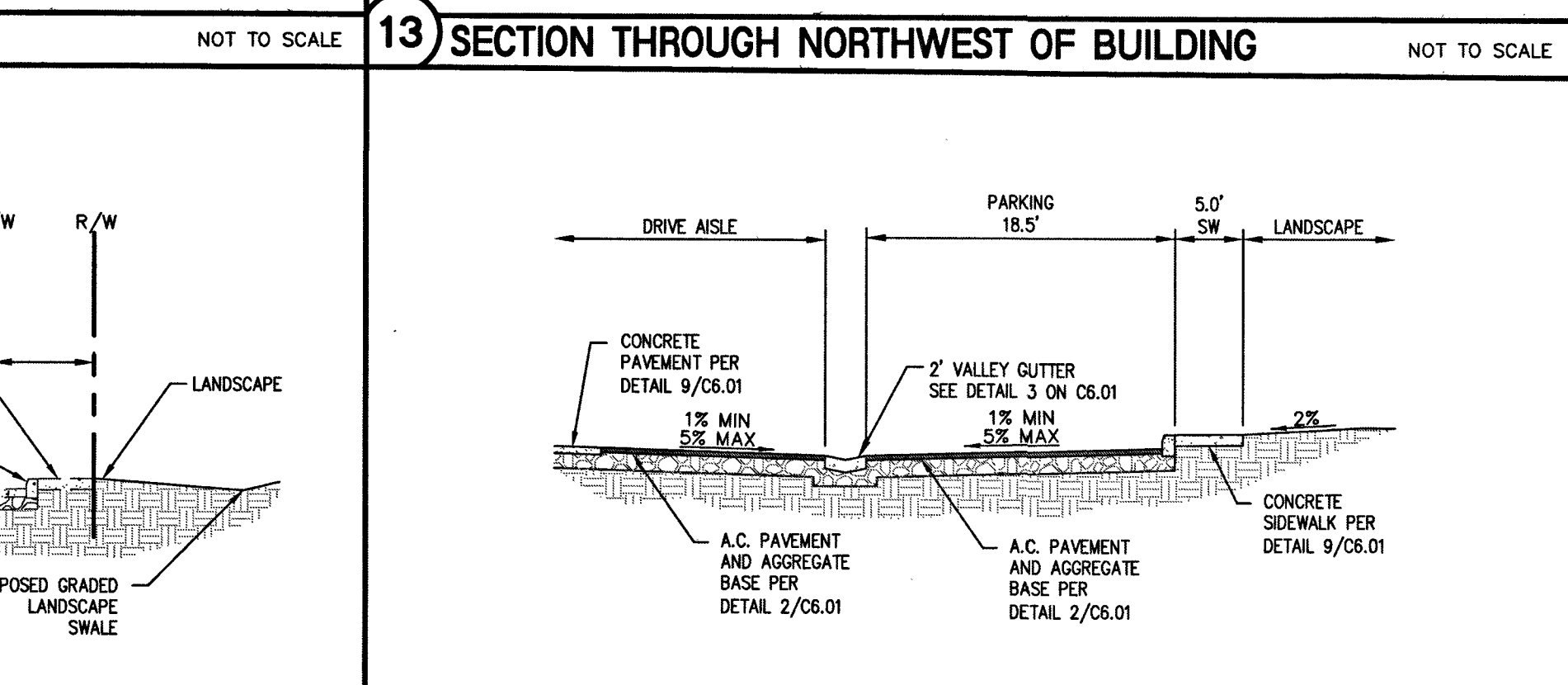
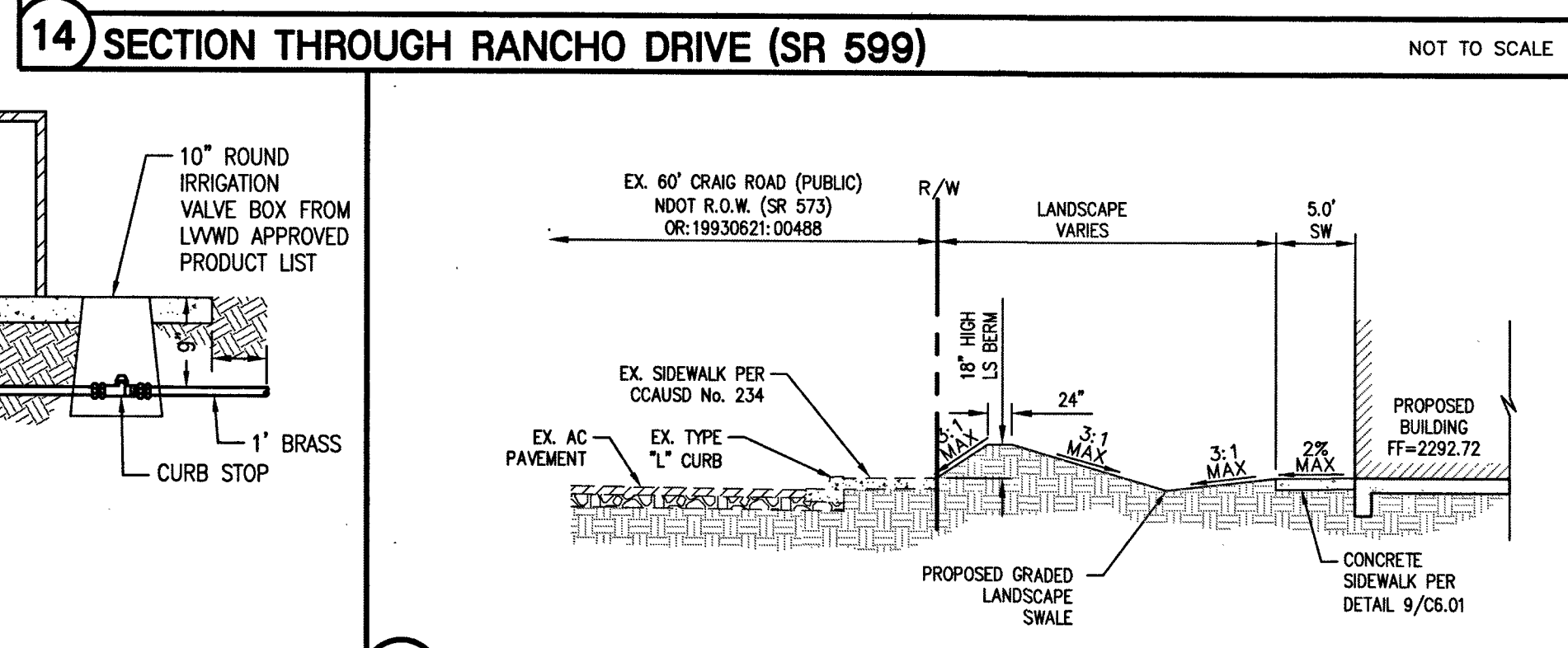
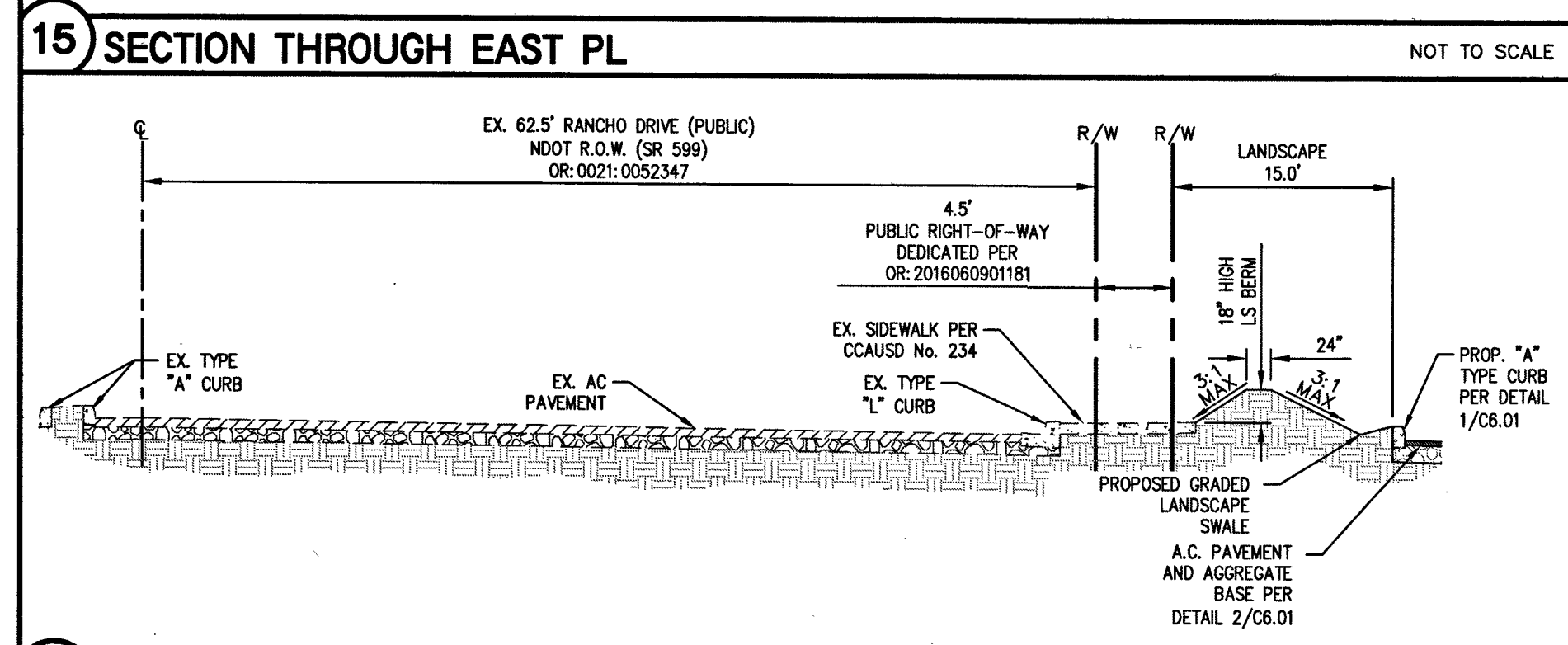
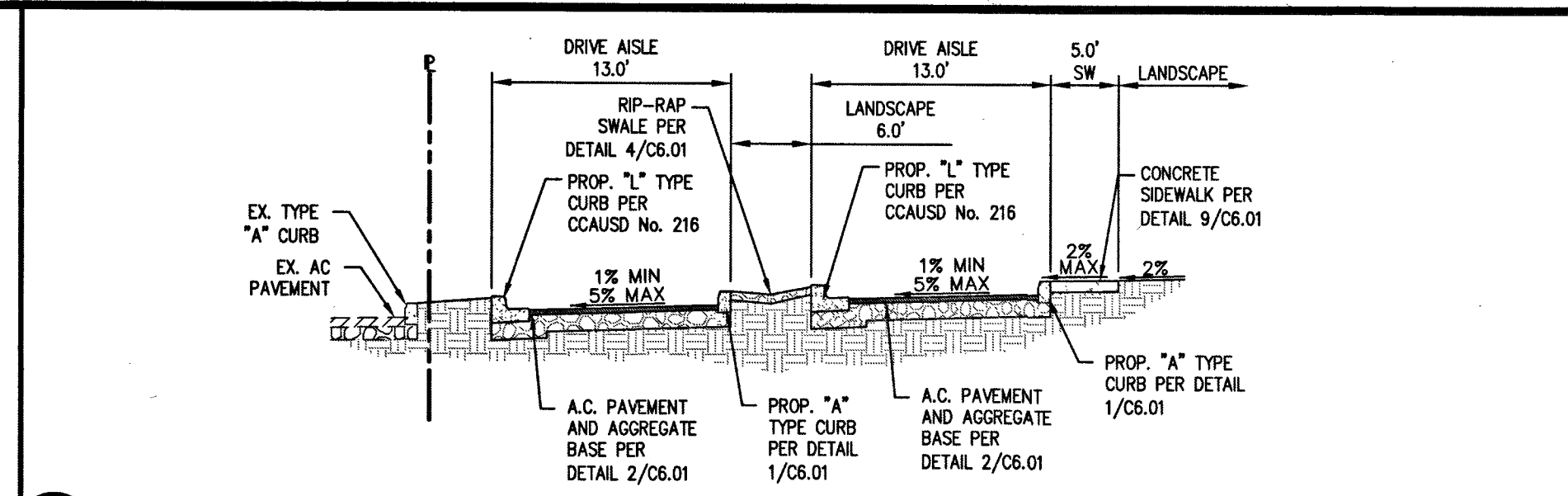
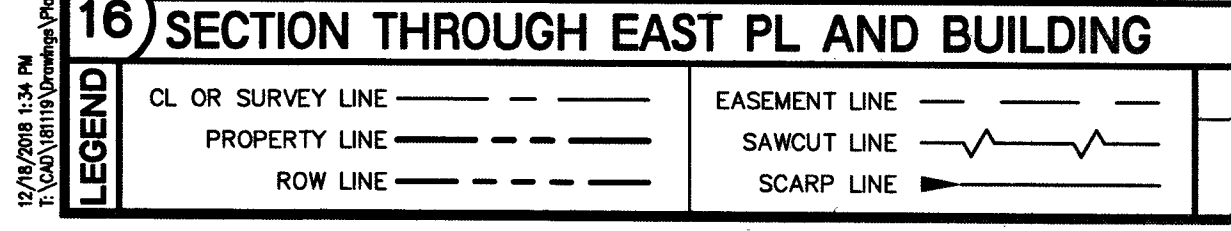
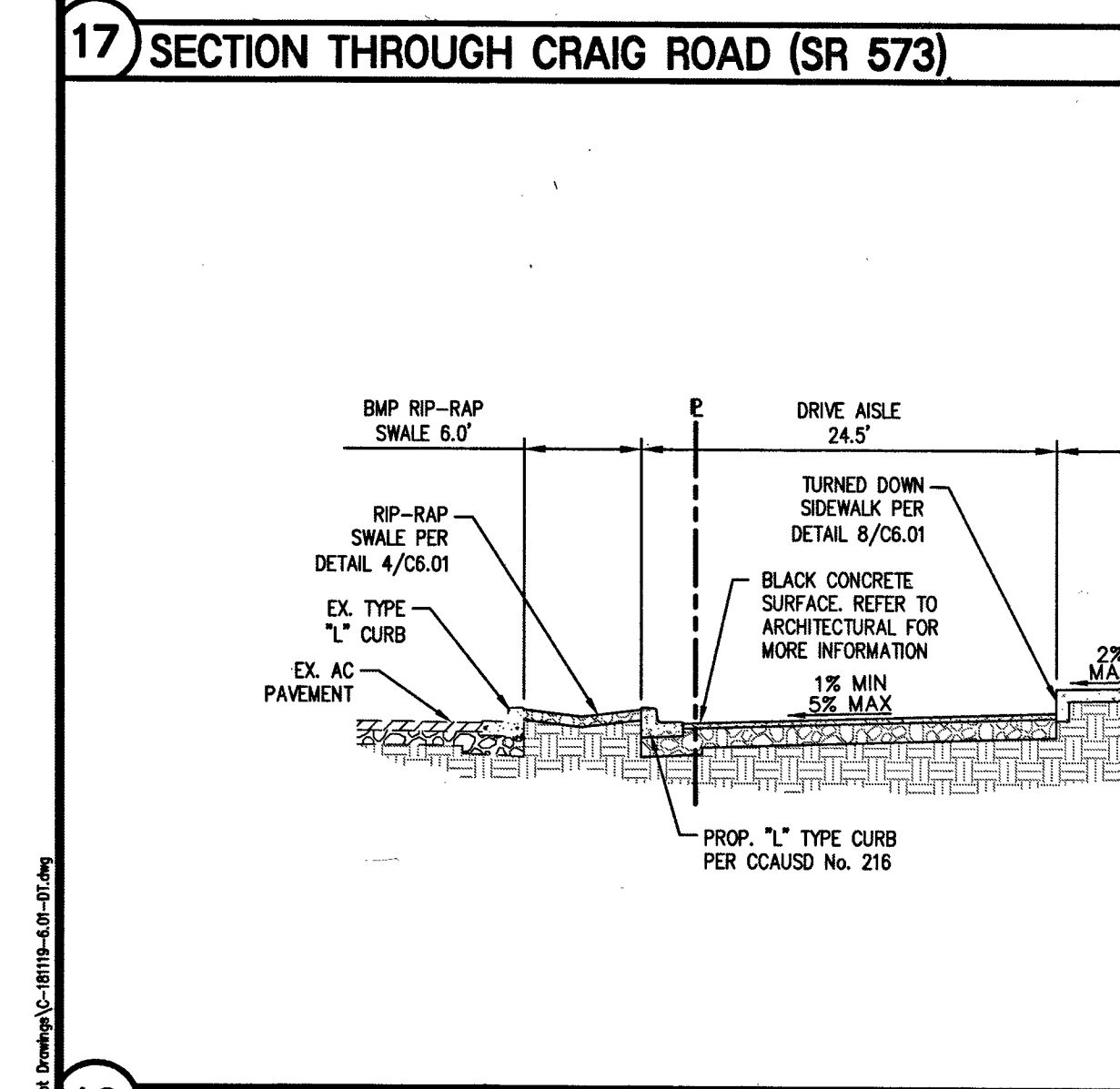
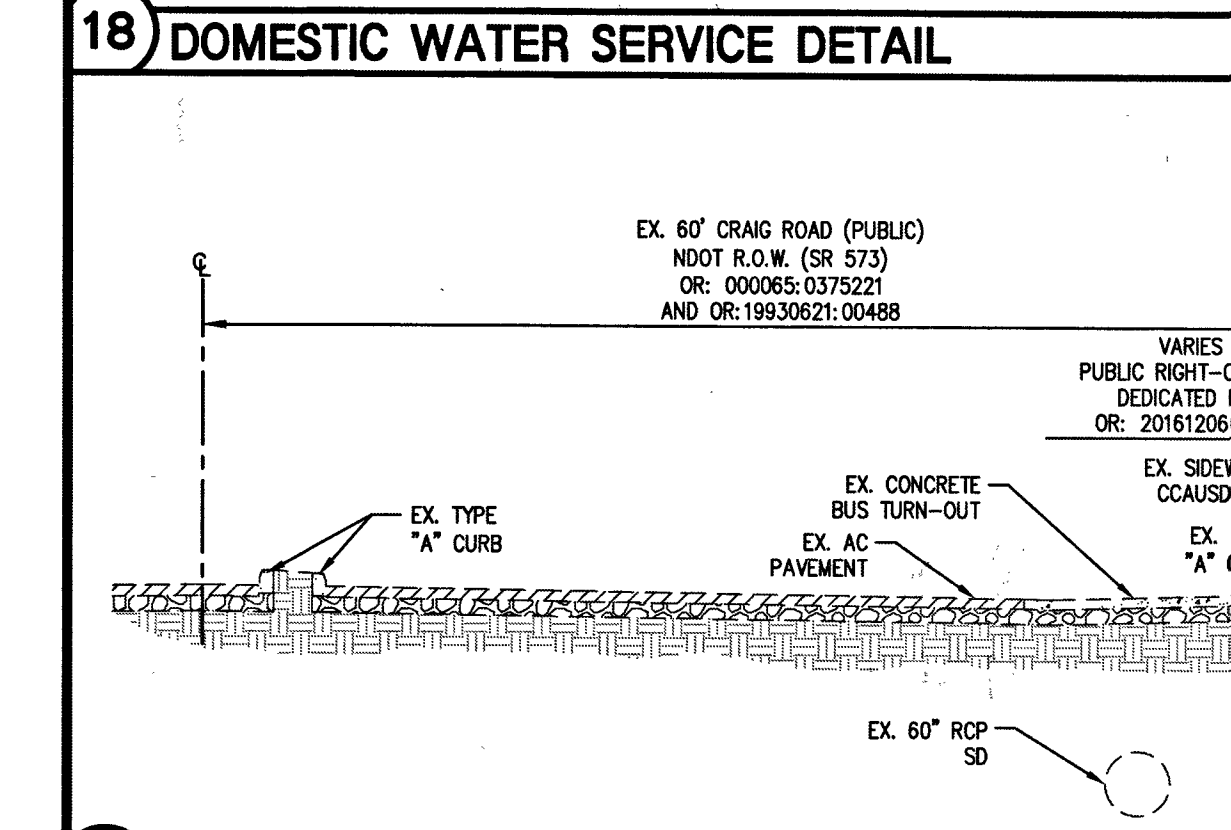
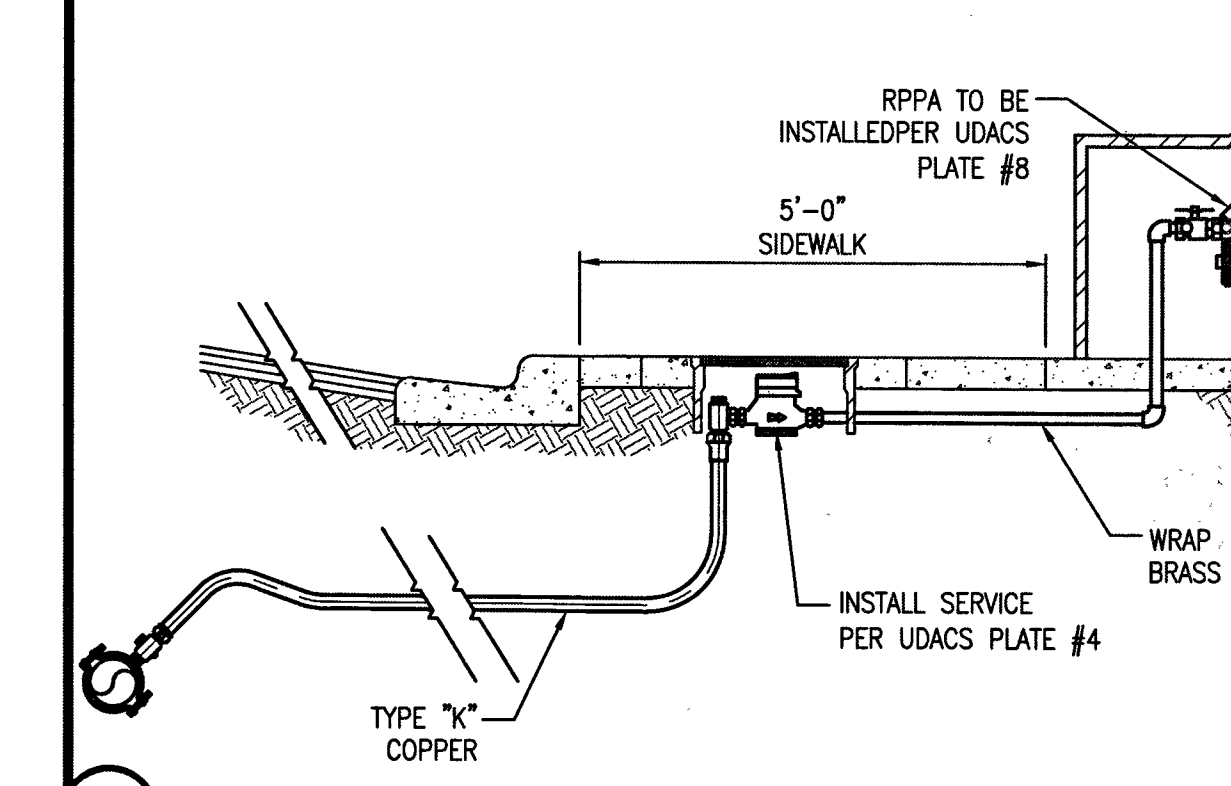
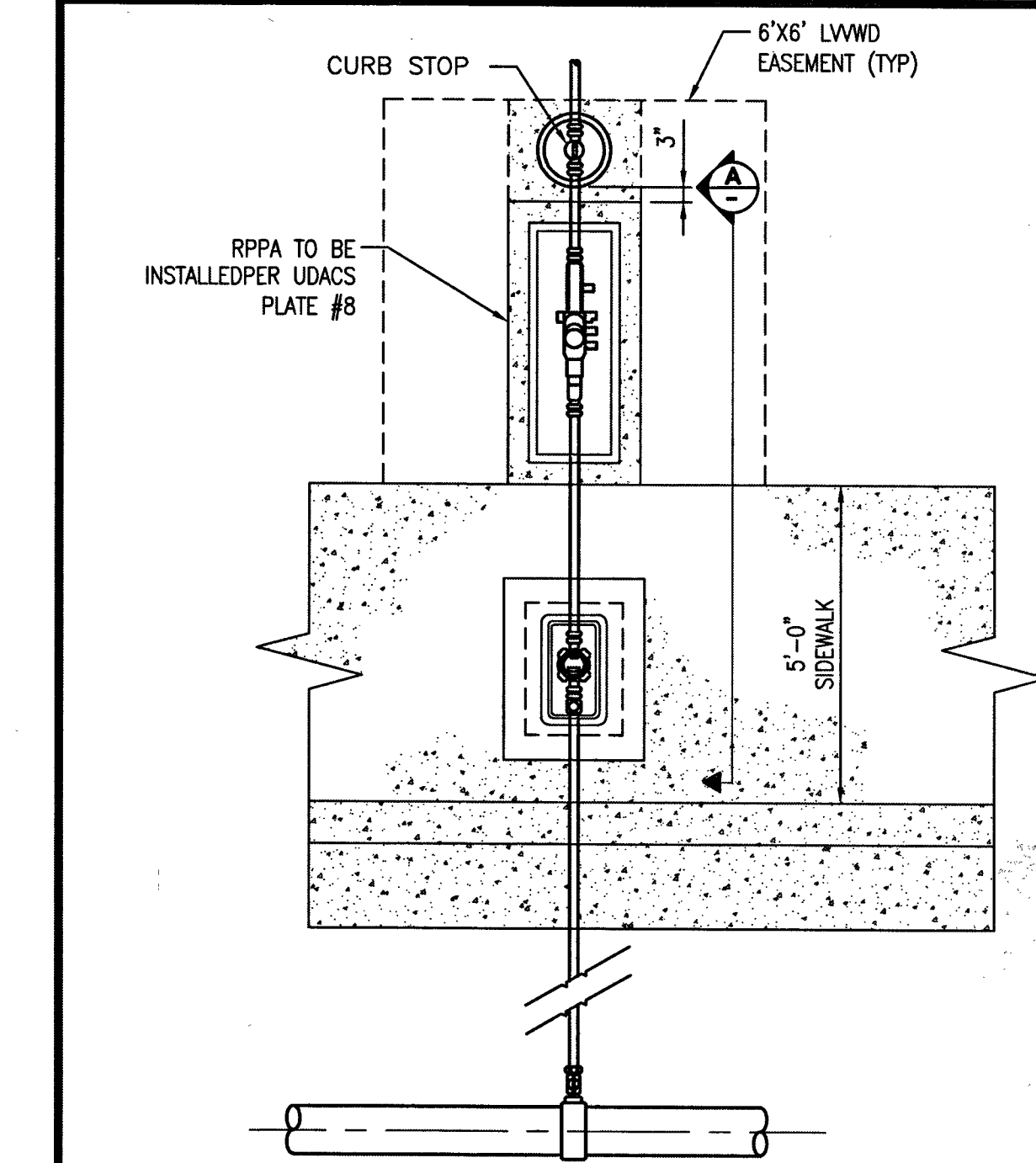
Lochsa
engineering

IMPROVEMENT PLANS
GRADING PLAN

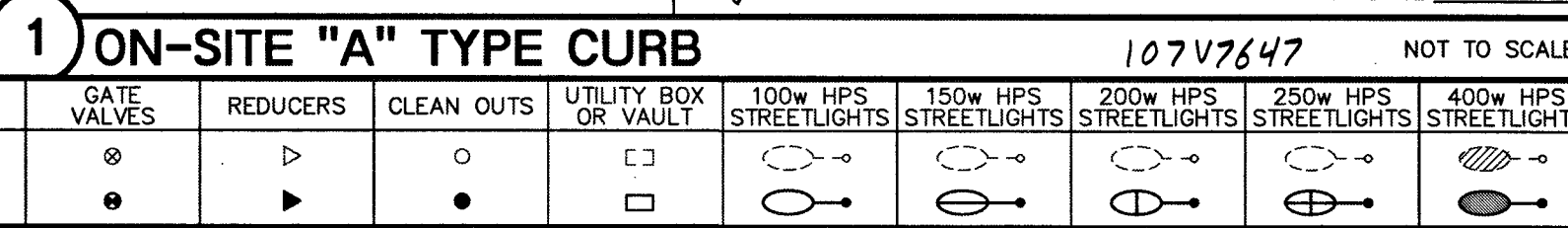
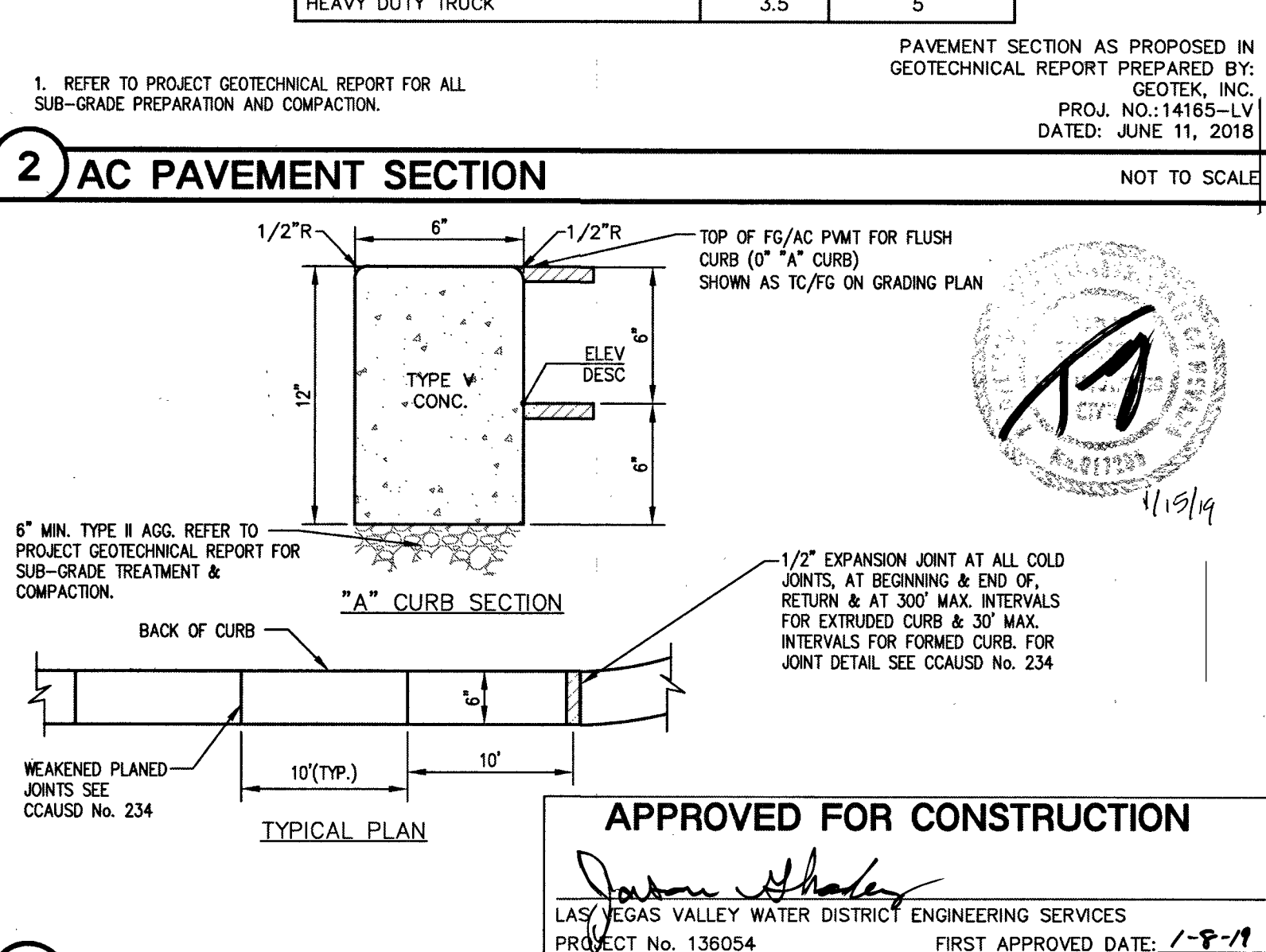
PROJECT No.: 181119
DATE: 10/01/18
SCALE: 1" = 20'
DRAWN BY: BJB
DESIGNED BY: BJB
CHECKED BY: TTE

12/5/18
SHEET No. 4.01
C5.01
OFFSITE No. L18-02525





TYPE OF TRAFFIC	ASPHALT (inches)	TYPE II BASE COURSE (inches)
AUTOMOBILE PARKING	2.5	4.5
DELIVERY TRUCK	3.5	5
HEAVY DUTY TRUCK	3.5	5



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7-11 @ CRAIG & RANCHO
SITE IMPROVEMENTS
LAS VEGAS, NEVADA

IMPROVEMENT PLANS
DETAIL SHEET

PROJECT No.: 181119
DATE: 10/01/18
SCALE: NTS
DRAWN BY: BJB
DESIGNED BY: BJB
CHECKED BY: TTE
SHEET No. 12/5/18
C6.01
SHEET 7 OF 7
OFFSITE No. L18-02525

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 136054
FIRST APPROVED DATE: 1-8-19
107V7647

12/5/18
C6.01
SHEET 7 OF 7
OFFSITE No. L18-02525

PROJ#: 136054A QS-138-02-SE