

CITY OF ALBUQUERQUE



March 19, 2018

Mike Walla, P.E.
Walla Engineering
6501 Americas Parkway, Suite 301
Albuquerque, NM 87110

**RE: Nusenda Credit Union Admin Expansion
4100 Pan-American Freeway NE
Grading and Drainage Plan
Engineer's Stamp Date 3/15/18
Hydrology File: G16D154**

Dear Mr. Walla:

Based on the information provided in your submittal received 3/15/18, the Grading and Drainage Plan cannot be approved for Grading Permit or Building Permit until the following comments are addressed:

Prior to Grading Permit:

1. Please recheck your first flush calculations. I calculated a new imperious area of only 2.436Ac and first flush runoff volume of 3007CF, based on your proposed basin conditions. This results in a lower payment of Fee-In-Lieu.
2. This project will require a public Work Order for the work along Luecking. Add a note to this Grading Plan that "No work is permitted in the Public Right-of Way without an approved Work Order" or similar.
3. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).

Prior to Building Permit:

4. Payment of the Fee-In-Lieu will be required at a rate of \$8/CF.

Prior to Certificate of Occupancy:

5. Close-out of the public work order will be required prior to issuing Certificate of Occupancy.

CITY OF ALBUQUERQUE



If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2016)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

☐ ENGINEER/ARCHITECT CERTIFICATION

☐ CONCEPTUAL G & D PLAN

☐ GRADING PLAN

☐ DRAINAGE MASTER PLAN

☐ DRAINAGE REPORT

☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)

☐ TRAFFIC IMPACT STUDY (TIS)

☐ OTHER (SPECIFY) _____

☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☐ BUILDING PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY

☐ PRELIMINARY PLAT APPROVAL

☐ SITE PLAN FOR SUB'D APPROVAL

☐ SITE PLAN FOR BLDG. PERMIT APPROVAL

☐ FINAL PLAT APPROVAL

☐ SIA/ RELEASE OF FINANCIAL GUARANTEE

☐ FOUNDATION PERMIT APPROVAL

☐ GRADING PERMIT APPROVAL

☐ SO-19 APPROVAL

☐ PAVING PERMIT APPROVAL

☐ GRADING/ PAD CERTIFICATION

☐ WORK ORDER APPROVAL

☐ CLOMR/LOMR

☐ OTHER (SPECIFY) _____

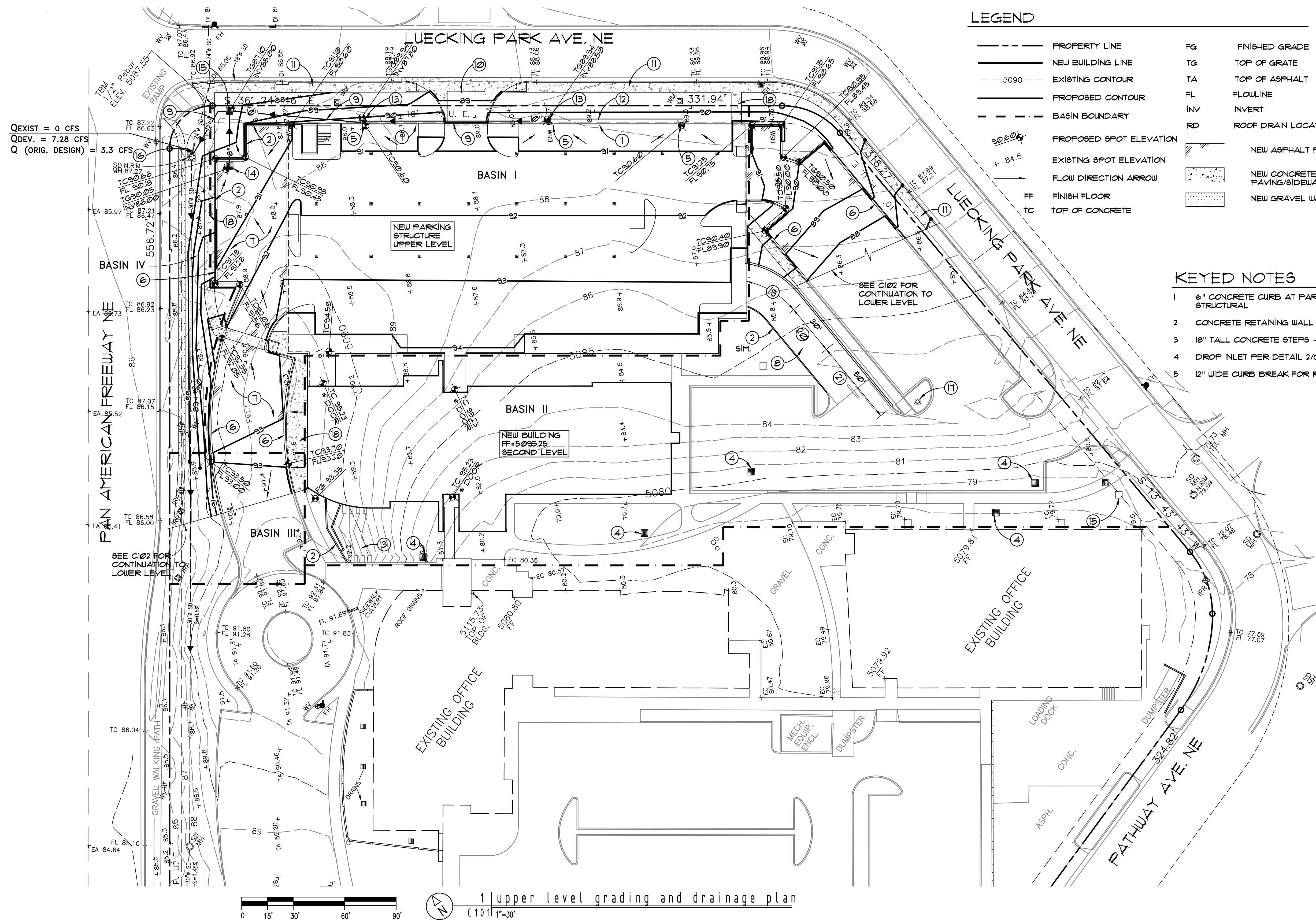
IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



LEGEND

- PROPERTY LINE
- NEW BUILDING LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- BASIN BOUNDARY
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- FLOW DIRECTION ARROW
- FINISH FLOOR
- TOP OF CONCRETE
- FG FINISHED GRADE
- TG TOP OF GRATE
- TA TOP OF ASPHALT
- FL FLOWLINE
- INV INVERT
- RD ROOF DRAIN LOCATION
- NEW ASPHALT PAVING
- NEW CONCRETE PAVING/SIDEWALK
- NEW GRAVEL WALKING PATH

NEW ADMIN BUILDING
FOR:
nUSENDA
CREDIT UNION
4100 PAN AM FWY, ABQ, NM

joe slagle architect
413 2nd st sw
abq nm 87102
505 246 0870

revisions:

KEYED NOTES

- 6" CONCRETE CURB AT PARKING DECK - SEE STRUCTURAL
- CONCRETE RETAINING WALL PER DETAIL 8/C301
- 18" TALL CONCRETE STEPS - SEE ARCH.
- DROP INLET PER DETAIL 2/C301
- 12" WIDE CURB BREAK FOR RUNOFF
- CONCRETE CURB AND GUTTER PER DETAIL 1/C301
- ASPHALT PAVING PER DETAIL 5/C301
- CONCRETE PAVING PER DETAIL 4/C301
- PVC STORM DRAIN - SEE PLAN FOR SIZE
- 4000 F81 CONCRETE DRIVE PAD PER C.O.A. STD. DRAWING #2426
- 4000 F81 CONCRETE SIDEWALK PER C.O.A. STD. DRAWING #2430
- 24" WIDE CONCRETE STORM DRAIN COLLECTION CHANNEL PER DETAIL 1/C301
- CATCH BASIN WITH CURB PER DETAIL 9/C301
- CATCH BASIN WITHOUT CURB PER DETAIL 10/C301
- OIL/WATER SEPARATOR CATCH BASIN PER DETAIL 3/C301
- CONNECT STORM DRAIN TO EXISTING MANHOLE
- NEW FIRE HYDRANT PER ABCWA STANDARD DRAWING #2340
- 4" THICK, 4000 F81 CONCRETE SIDEWALK REINFORCED WITH 6x6-W2.1XU21 WWF. ON CHAIRS CENTERED IN SECTION
- CONCRETE RETAINING WALL PER DETAIL 11/C301
- CONCRETE RETAINING WALL PER DETAIL 12/5301
- CONCRETE RETAINING WALL PER DETAIL 13/C301

DESIGN NARRATIVE

THE PROJECT IS THE CONSTRUCTION OF A NEW OFFICE BUILDING AND PARKING DECK ON THE VACANT NORTH END OF A 12 ACRE SITE. THE NEW CONSTRUCTION AREA IS APPROXIMATELY 3.6 ACRES AND WILL INCLUDE A PARKING LOT AND RAMP ACCESS TO THE LOWER AND UPPER PARKING DECK LEVELS WITH A NEW DRIVE ACCESS FROM LUECKING PARK AVE. ON THE NORTH END OF THE SITE. SITE RUNOFF CURRENTLY FLOWS FROM WEST TO EAST ACROSS THE UNIMPROVED PORTION OF THE SITE AND THE PROPOSED LOWER LEVEL IMPROVEMENTS ARE DESIGNED TO MAINTAIN THIS DRAINAGE SCHEME. UNDERGROUND STORM DRAIN LINES WILL COLLECT SURFACE FLOWS AND ROOF DRAINS THROUGH A SERIES OF DROP INLETS TO PUBLIC DOWSTREAM FACILITIES ON THE EAST EDGE OF THE SITE VIA AN EXISTING MANHOLE IN LUECKING PARK AVE. THE UPPER PARKING DECK IS SLOPED TOWARD THE NORTH AND DEVELOPED FLOWS FROM THIS STRUCTURE WILL BE DEPOSITED INTO C.O.A. STORM DRAIN FACILITIES ON WEST EDGE OF THE PROPERTY. STORM RUNOFF IS CAPTURED IN CATCH BASINS AND STORM DRAIN LINES WHICH WILL BE DEPOSITED IN AN EXISTING MANHOLE LOCATED ADJACENT TO THE I-25 FRONTAGE ROAD. THE DEVELOPED RUNOFF FROM THE LOWER LEVEL, WHICH ENTERS C.O.A. FACILITIES IN LUECKING PARK AVE. IS LESS THAN THE CALCULATED HISTORIC RUNOFF FROM THE SITE CURRENTLY. HOWEVER, THE NEW DEVELOPED FLOW DIRECTED TO C.O.A. FACILITIES AT THE NORTHEAST CORNER OF THE SITE IS AN INCREASE FROM THE UNDEVELOPED CONDITION.

DOWSTREAM FACILITIES

THE SOUTHEAST HALF OF THE SITE (BASIN II) WILL HAVE DEVELOPED FLOW THAT IS LESS THAN THE UNDEVELOPED FLOW EXITING THE SITE INTO STORM DRAIN FACILITIES IN LUECKING PARK AVE. THEREFORE, DOWSTREAM STORM DRAIN SHOULD BE UNAFFECTED BY THE NEW CONSTRUCTION. THE DEVELOPED FLOW ON THE NORTHWEST SIDE OF THE SITE (BASIN I) WILL BE COLLECTED AND DEPOSITED IN A MANHOLE ADJACENT TO THE I-25 FRONTAGE ROAD AND THEN CONVEYED TO THE SOUTH IN AN EXISTING 30" RCP. ACCORDING TO THE ORIGINAL DESIGN BY JMA, INC. THE 30" STORM DRAIN CURRENTLY CONVEYS Q 100 = 24.5 CFS WITH A Q MAX. OF 312 CFS, LEAVING ADDITIONAL CAPACITY OF 6.7 CFS. THE PROPOSED DEVELOPED Q 100 = 128 CFS BUT THE ORIGINAL DESIGN ASSUME A Q FROM THIS SITE OF 33 CFS. THEREFORE, THE NET ADDITIONAL FLOW TO THE 30" STORM DRAIN IS 338 CFS AND WILL STILL BE WITHIN THE CAPACITY OF THE EXISTING PIPE. THE NEW Q 100 IN THIS PIPE WILL BE 24.5 + 3.38 CFS OF 28.88 CFS WITH A HGL OF 2'-0" ABOVE THE PIPE INVERT.

OFFSITE RUNOFF TO THE NTHSD FRONTAGE ROAD

ALONG THE WEST SIDE OF THE SITE THERE EXISTS A LANDSCAPED SLOPE WHERE STORM RUNOFF SURFACE FLOWS TOWARD THE FRONTAGE ROAD. THE NEW DEVELOPMENT WILL NOT SIGNIFICANTLY CHANGE THIS CONDITION AND IN FACT WILL SLIGHTLY REDUCE THIS HISTORIC RUNOFF VOLUME (BASIN IV). THE EXISTING GRADING PROVIDE SOME RUNOFF STORAGE CAPACITY AT THE BASE OF THE SLOPE.

DISCHARGE TO ORIGINAL DEVELOPMENT

A SMALL AREA OF THE PROPOSED SITE WILL DISCHARGE RUNOFF TO THE EXISTING IMPROVED PART OF THE DEVELOPMENT. THIS AREA IS LOCATED AT THE NORTHEAST PERIMETER OF THE PROPERTY AND IDENTIFIED AS BASIN II. WITH A Q 100 OF 0.54 CFS THIS FLOW WILL FALL WITHIN EXPECTED PARAMETERS OF THE ORIGINAL PATHWAY OFFICE PARK DRAINAGE PLAN.

UPPER LEVEL
GRADING and
DRAINAGE PLAN
date:
3-15-18
sheet:
c101

HYDROLOGY CALCULATIONS

PRECIPITATION ZONE 2 DESIGN STORM: (IN)									
EXISTING CONDITIONS		1hr	6hr	24hr	4day	10day			
LAND TRTMT	AREA (ACRE)	%	F6	Q (CFS/AC)	Q (CF)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.000	0%	0.53	156	0.00	0	0	0	0
B	2.108	95%	0.18	228	6.17	166.1	166.1	166.1	166.1
C	0.150	5%	1.13	3.14	0.41	6.15	6.15	6.15	6.15
D	0.000	0%	2.12	4.10	0.00	0	0	0	0
TOTALS	2.858	100%	6.65	8,283	8,283	8,283	8,283	8,283	8,283
PROPOSED CONDITIONS BASIN I		1hr	6hr	24hr	4day	10day			
LAND TRTMT	AREA (ACRE)	%	F6	Q (CFS/AC)	Q (CF)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.000	0%	0.53	156	0.00	0	0	0	0
B	0.010	5%	0.18	228	0.16	198	198	198	198
C	0.000	0%	1.13	3.14	0.00	0	0	0	0
D	1289	95%	2.12	4.10	6.06	9,320	11,191	14,365	17,406
TOTALS	1.359	100%	6.22	10,118	11,389	14,563	17,604		

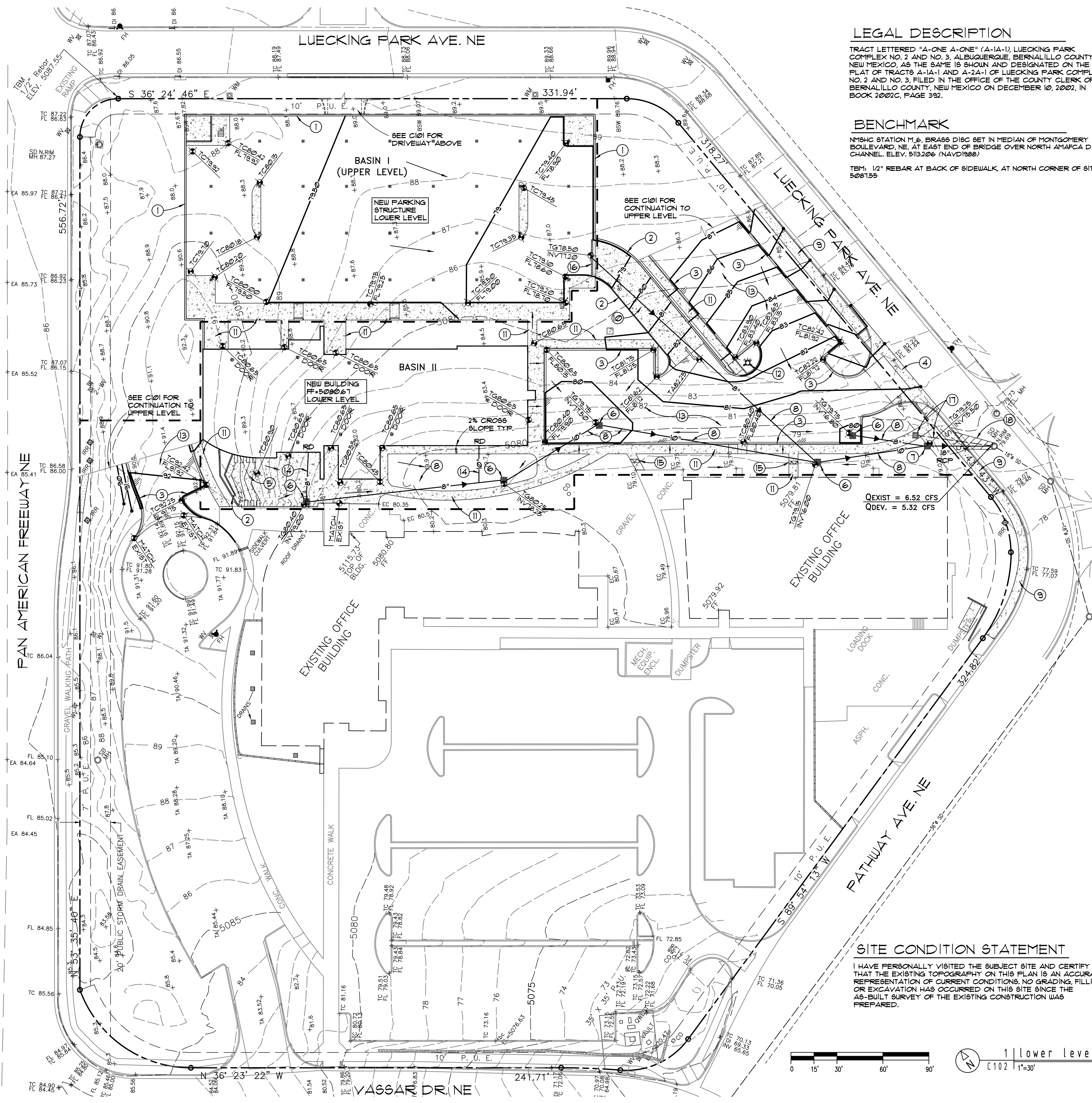
PROPOSED CONDITIONS BASIN II									
LAND TRTMT	AREA (ACRE)	%	F6	Q (CFS/AC)	Q (CF)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.000	0%	0.53	156	0.00	0	0	0	0
B	0.201	16%	0.18	228	0.46	569	569	569	569
C	0.000	0%	1.13	3.14	0.00	0	0	0	0
D	1.035	84%	2.12	4.10	4.86	7,965	9,468	11,534	13,916
TOTALS	1.236	100%	5.32	8,534	10,031	12,103	14,545		
PROPOSED CONDITIONS BASIN III									
LAND TRTMT	AREA (ACRE)	%	F6	Q (CFS/AC)	Q (CF)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.000	0%	0.53	156	0.00	0	0	0	0
B	0.000	0%	0.18	228	0.00	0	0	0	0
C	0.051	43%	1.13	3.14	0.18	234	234	234	234
D	0.011	51%	2.12	4.10	0.36	593	104	858	1,040
TOTALS	0.134	100%	0.54	826	938	1,092	1,214		
PROPOSED CONDITIONS BASIN IV									
LAND TRTMT	AREA (ACRE)	%	F6	Q (CFS/AC)	Q (CF)	V6 (CF)	V24 (CF)	V4DAY (CF)	V10DAY (CF)
A	0.000	0%	0.53	156	0.00	0	0	0	0
B	0.000	0%	0.18	228	0.00	0	0	0	0
C	0.093	73%	1.13	3.14	0.29	381	381	381	381
D	0.035	27%	2.12	4.10	0.16	269	320	390	473
TOTALS	0.128	100%	0.46	651	102	112	254		

FIRST FLUSH VOLUME CALCULATION
FOR FEE-IN-LIEU PAYMENT

DEVELOPED TREATMENT D AREA = 1.1482 AC + 1.035 AC = 2.517 AC

V=2.517 (43560 SF/AC) X 0.34 IN X 1 FT/12 IN = 3106 CF

FEE-IN-LIEU = 3106 CF X \$8.00/CF = \$24,848.00



LEGAL DESCRIPTION

TRACT LETTERED "A-ONE A-ONE" (A-1A-1), LUECKING PARK COMPLEX NO. 2 AND NO. 3, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT OF TRACTS A-1A-1 AND A-2A-1 OF LUECKING PARK COMPLEX NO. 2 AND NO. 3, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 10, 2002, IN BOOK 2002C, PAGE 392.

BENCHMARK

N184C STATION M.6, BRASS DISC SET IN MEDIAN OF MONTGOMERY BOULEVARD, NE, AT EAST END OF BRIDGE OVER NORTH AMAFCA DIVERSION CHANNEL. ELEV. 5113.206 (NAVD1988).

TM: 1/2" REBAR AT BACK OF SIDEWALK, AT NORTH CORNER OF SITE ELEV. 5081.55

NEW ADMIN BUILDING

FOR:

nUSENDA
CREDIT UNION

4100 PAN AM FWY, ABQ, NM

Walla Structural Engineering
Civil Engineering
6501 Americas Parkway, NE Suite 301
Albuquerque, New Mexico 87110
881-3008 • Facsimile 881-4025

joe slagle architect

413 2nd st sw
aba nm 87102
505 246 0870

revisions:

KEYED NOTES

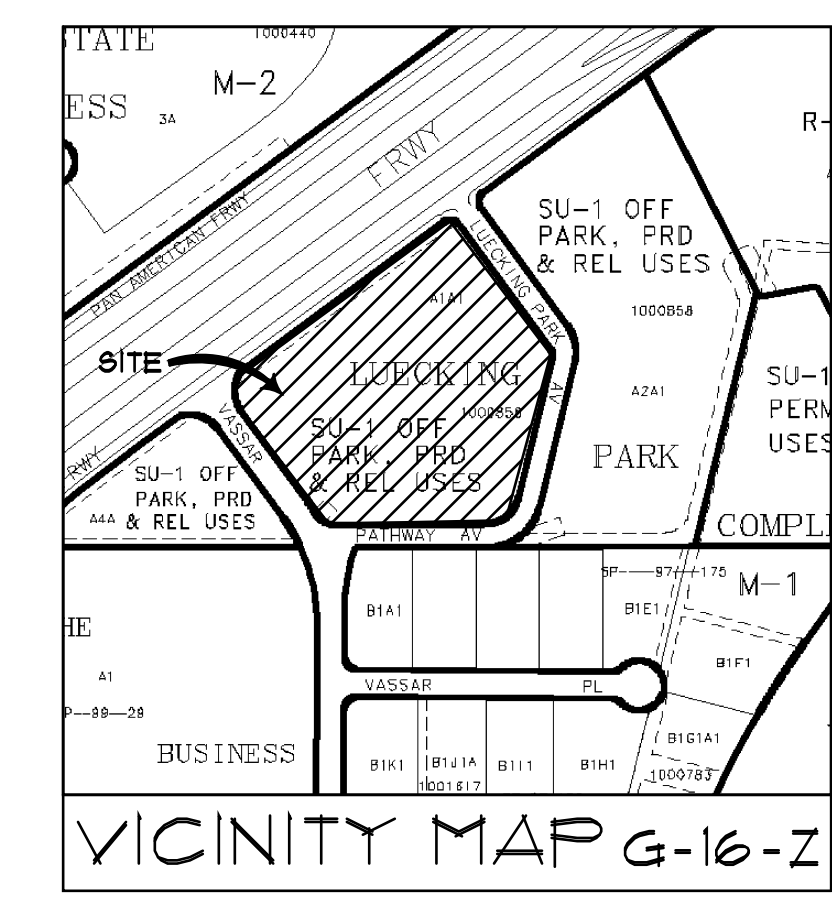
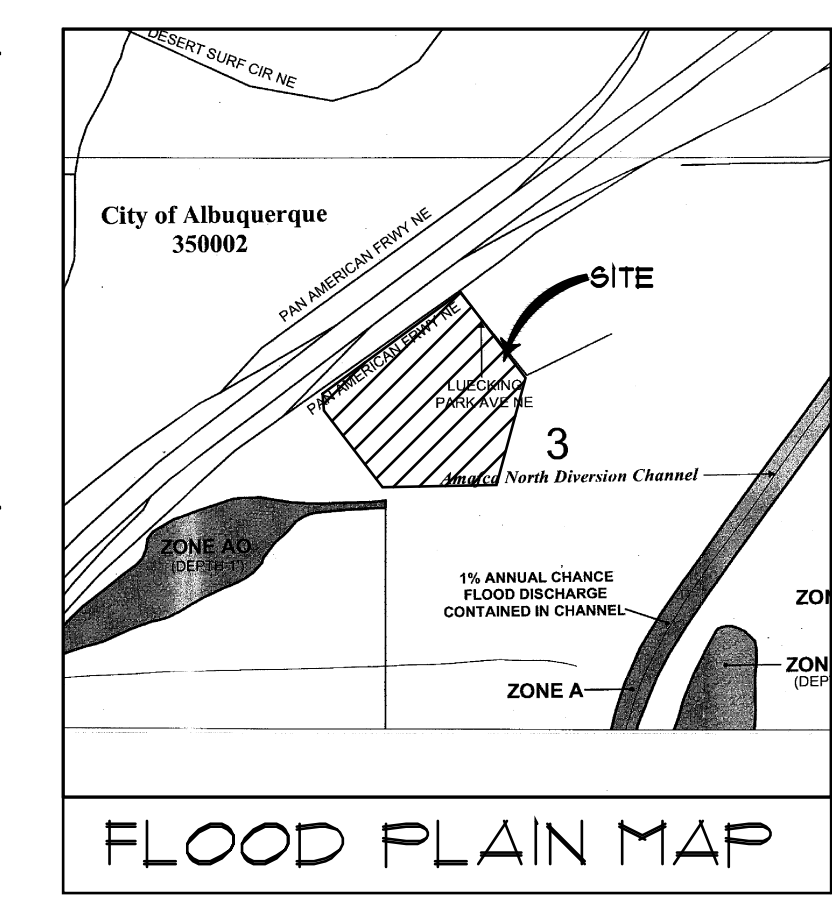
- 1 CONCRETE WALL AT PARKING STRUCTURE - SEE STRUCTURAL
- 2 CONCRETE RETAINING WALL PER 11, 12, 13/C301
- 3 CONCRETE CURB AND GUTTER PER DETAIL 1/C301
- 4 4000 PSI CONCRETE DRIVE PAD PER C.O.A. STANDARD DRAWING 2426
- 5 18" TALL CONCRETE STEPS - SEE ARCH.
- 6 DROP INLET PER DETAIL 2/C301
- 7 OIL/WATER SEPARATOR CATCH BASIN PER 3/C301
- 8 PVC STORM DRAIN - SEE PLAN FOR SIZE
- 9 4000 PSI CONCRETE SIDEWALK PER C.O.A. STANDARD DRAWING 2430
- 10 CONCRETE PAVING PER DETAIL 4/C301
- 11 4" THICK, 4000 PSI CONCRETE SIDEWALK REINFORCED WITH 6x6-1/2x1/2x1 W.W.F. ON CHAIRS CENTERED IN SECTION
- 12 NEW FIRE HYDRANT PER ABCUMA STANDARD DRAWING 2340
- 13 ASPHALT PAVING PER DETAIL 5/C301
- 14 PVC ROOF DRAIN - SIZE AS SHOWN
- 15 1'-0" WIDE SIDEWALK CULVERT PER DETAIL 6/C301
- 16 TRENCH DRAIN - SEE 2/P6201
- 17 REMOVE EXISTING 18" RCP STORM DRAIN AND CATCH BASIN
- 18 REMOVE AND REPLACE EXISTING CONCRETE CURB AND GUTTER AND ASPHALT PAVING PER C.O.A. STANDARD DRAWINGS 2415, 2401 AND 2465

LEGEND

- PROPERTY LINE
- NEW BUILDING LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- BASIN BOUNDARY
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- FLOW DIRECTION ARROW
- FINISH FLOOR
- TOP OF CONCRETE
- FINISHED GRADE
- TOP OF GRATE
- TOP OF ASPHALT
- FLOWLINE
- INVERT
- ROOF DRAIN LOCATION
- NEW ASPHALT PAVING
- NEW CONCRETE PAVING/SIDEWALK
- NEW GRAVEL WALKING PATH

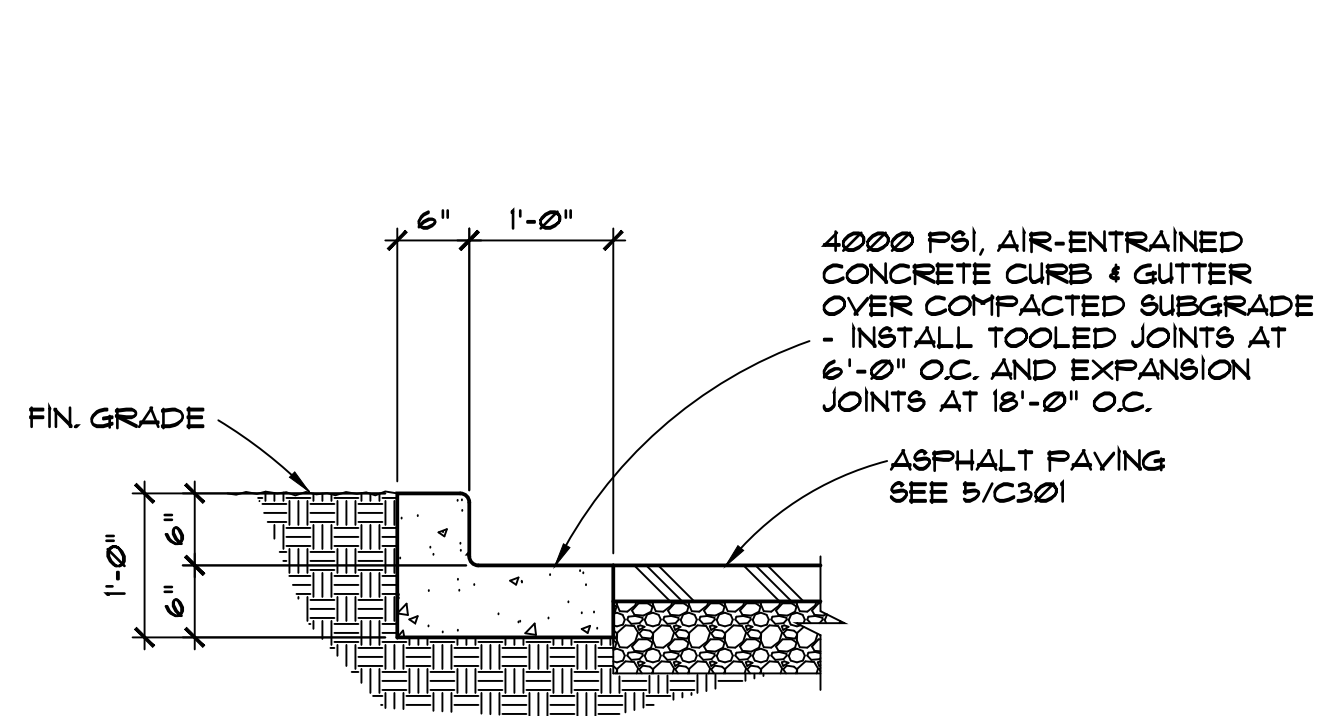
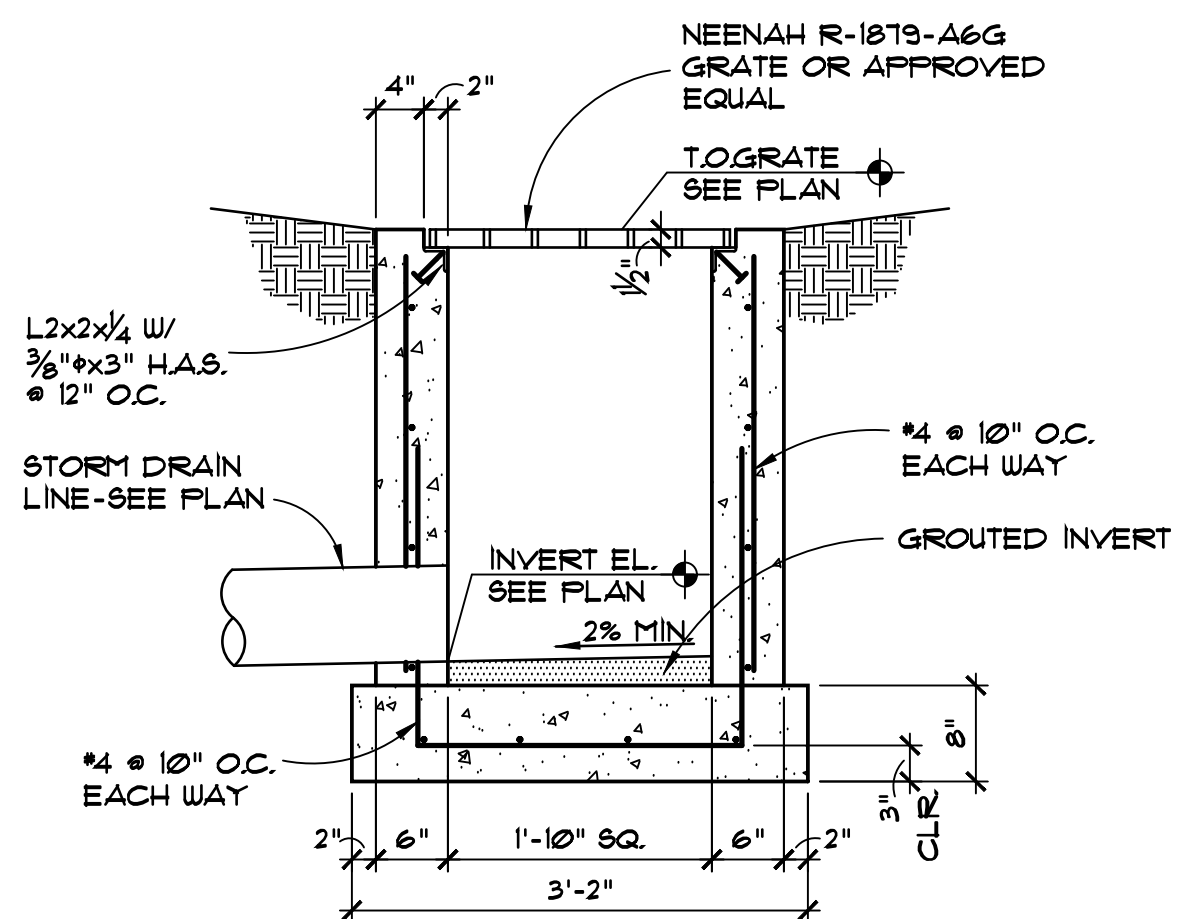
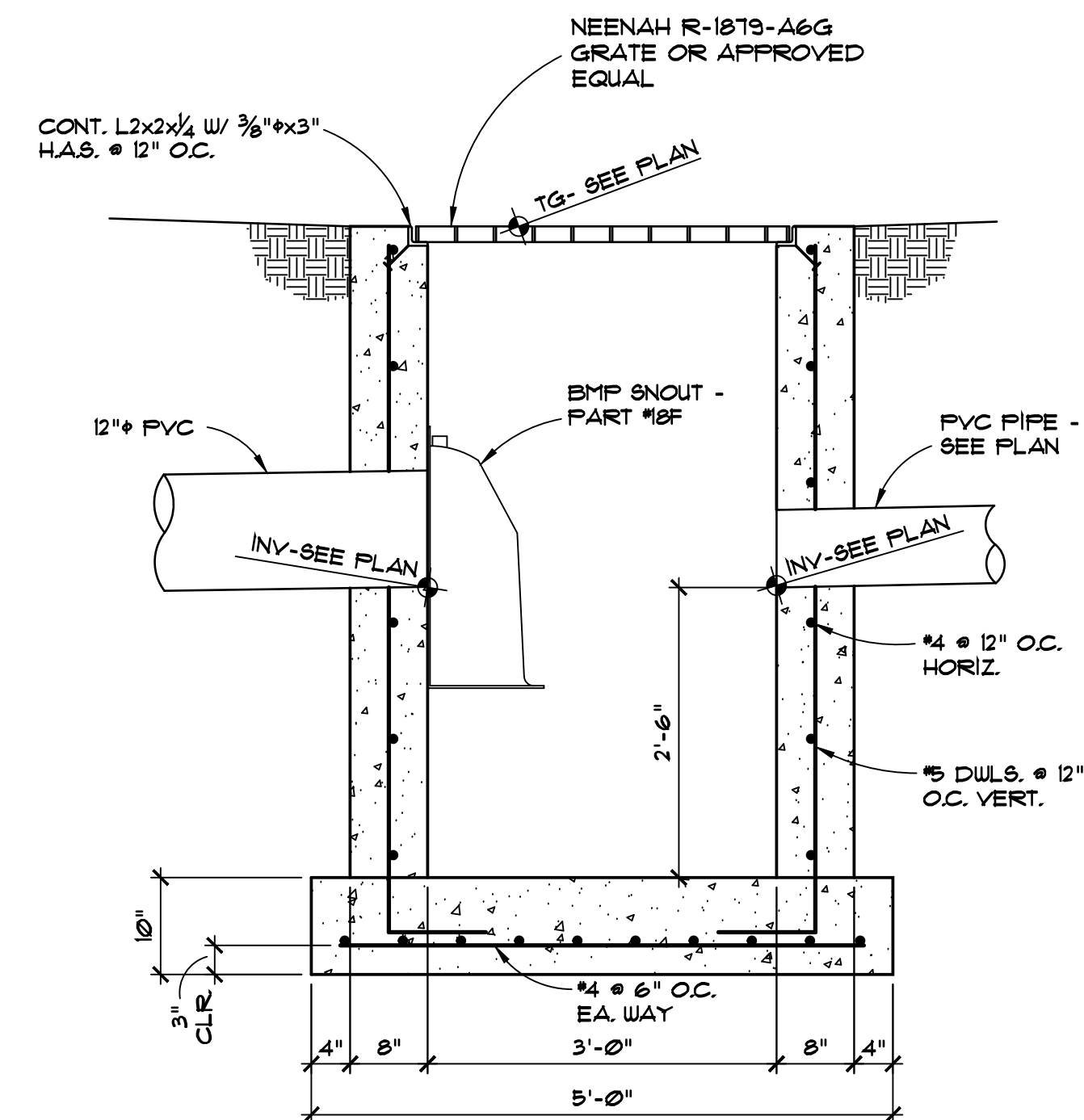
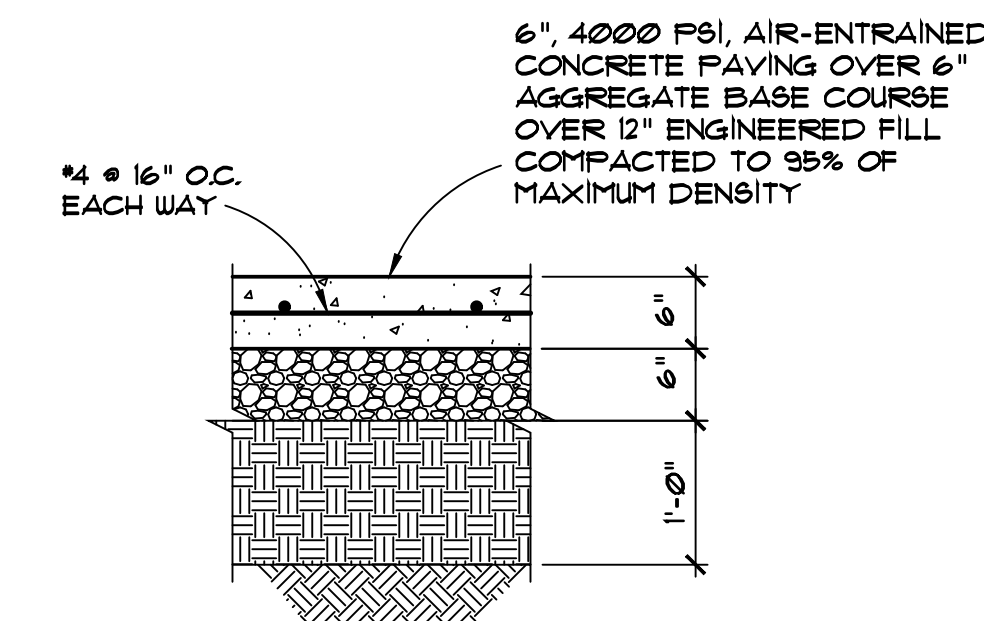
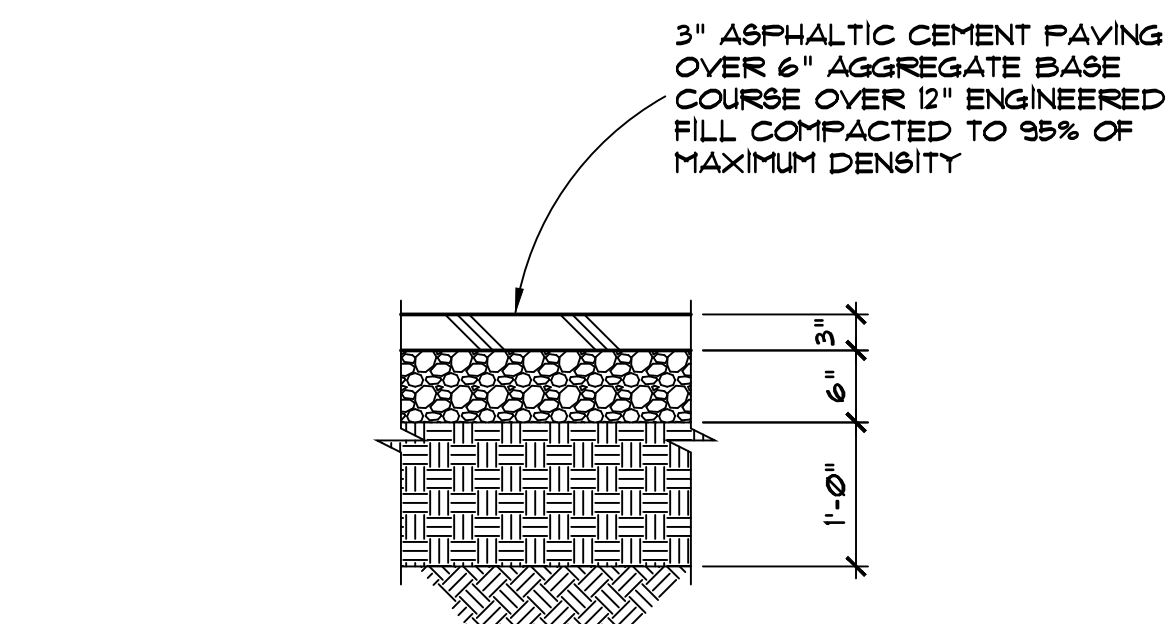
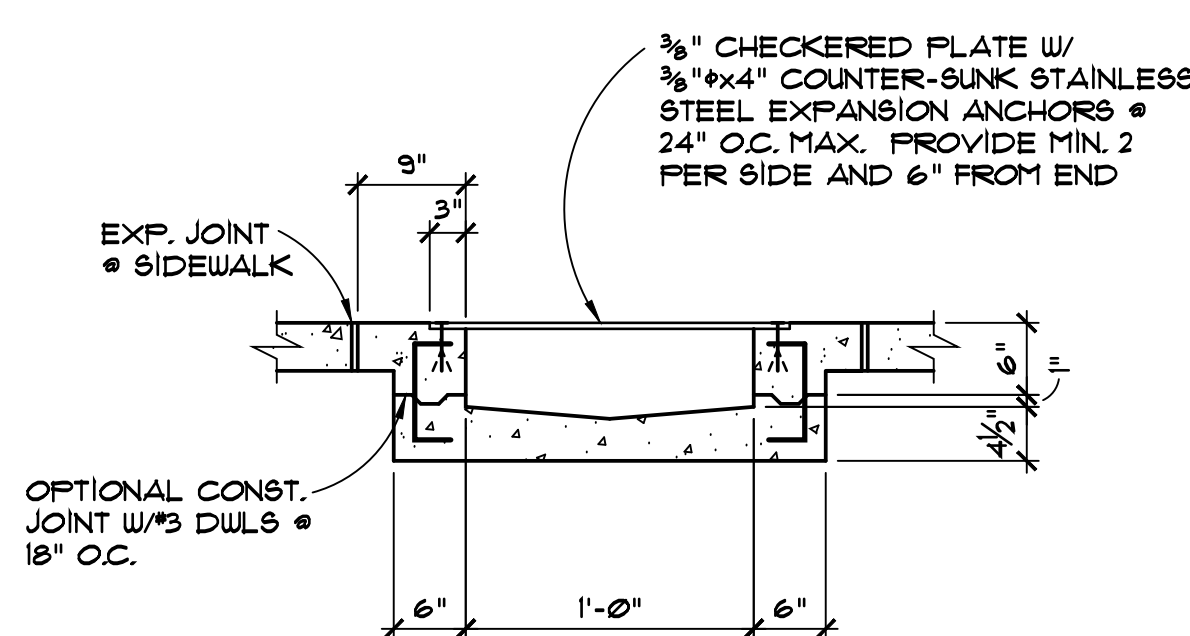
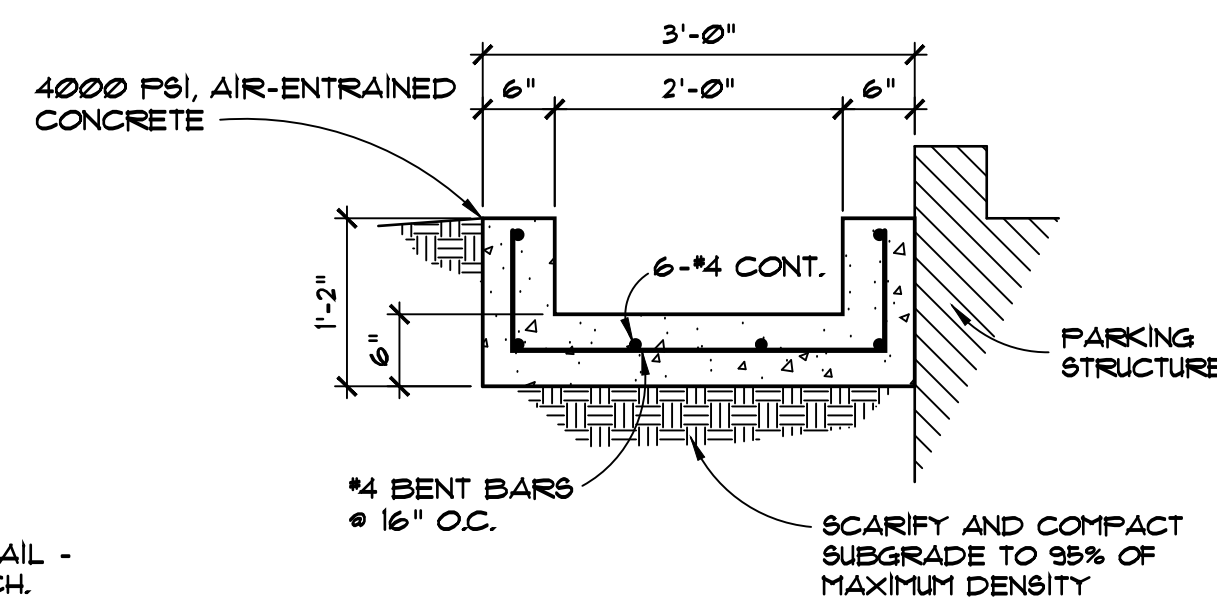
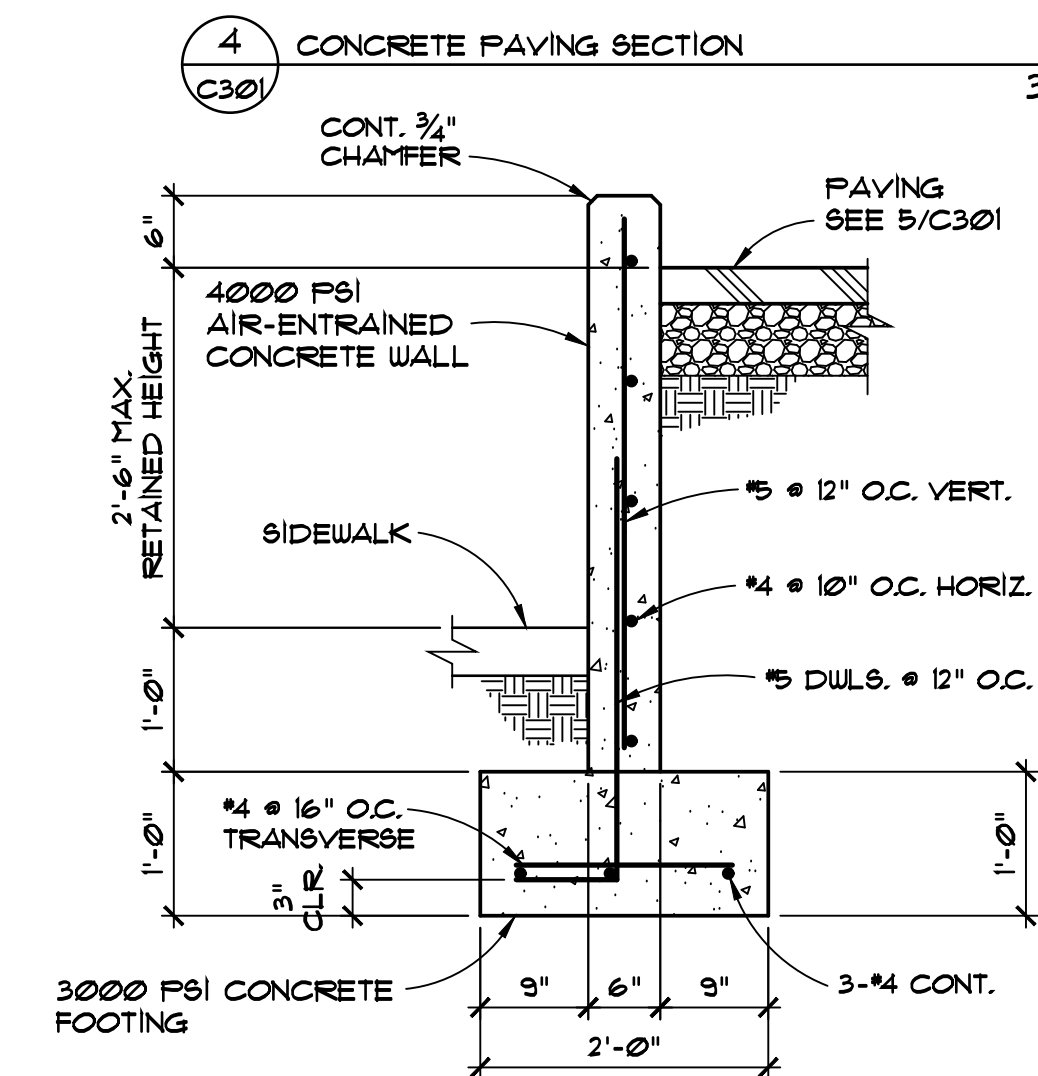
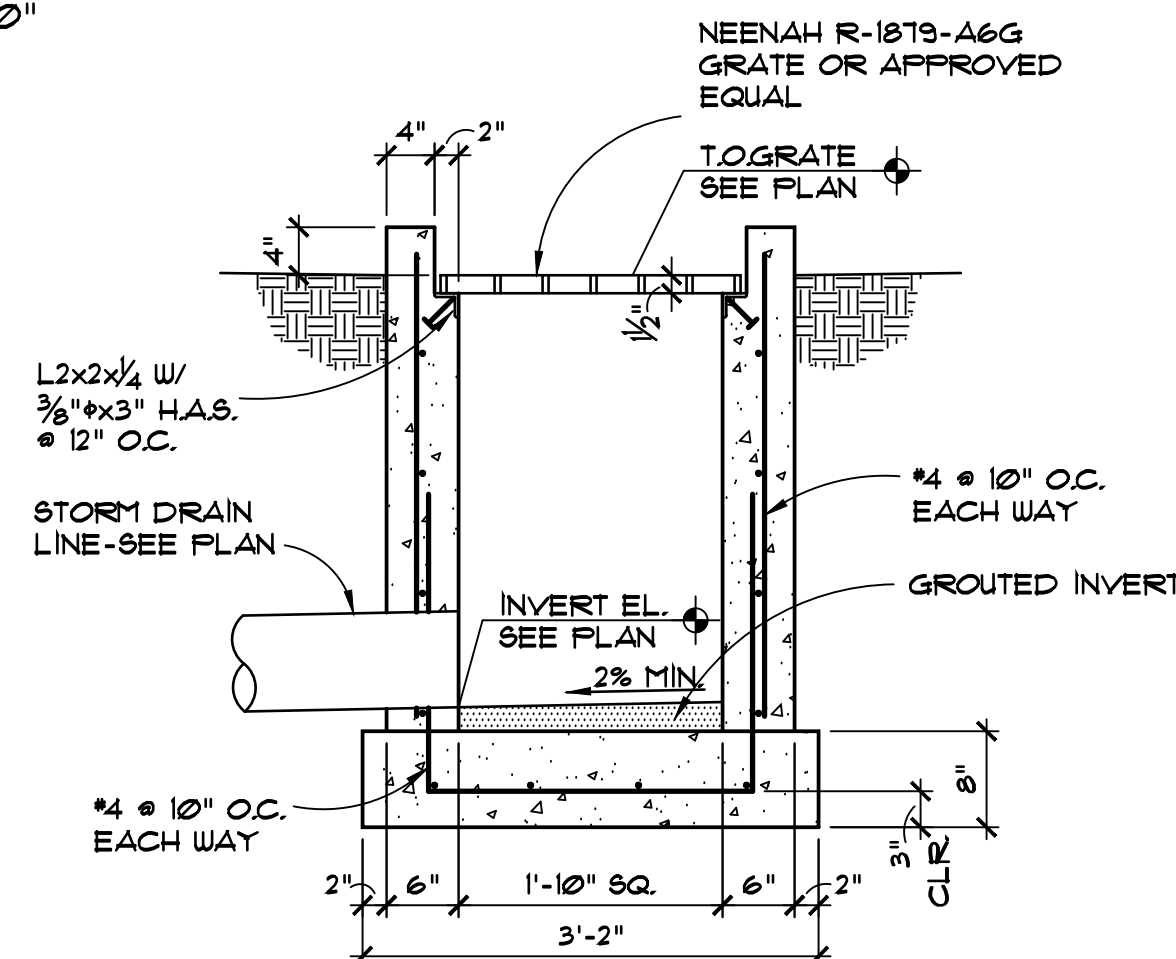
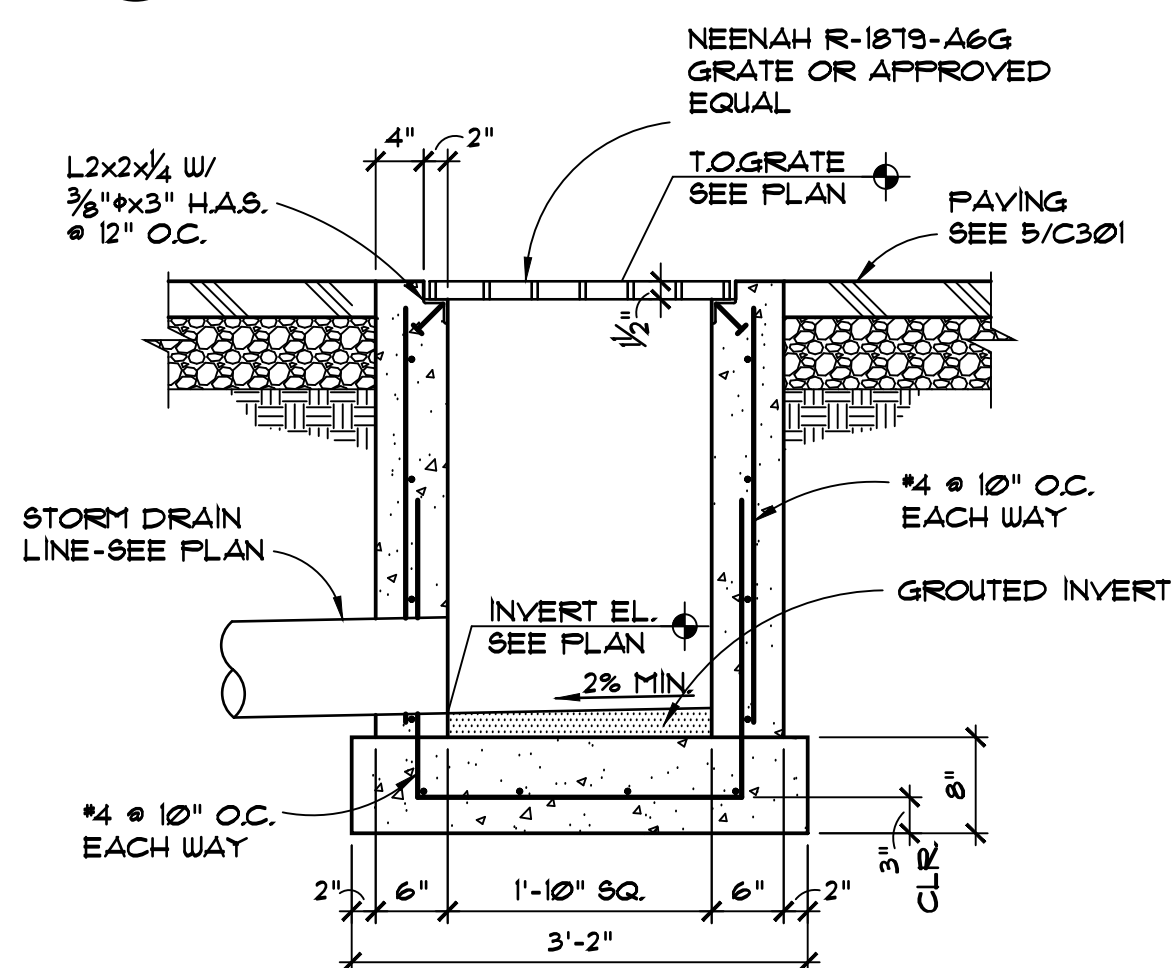
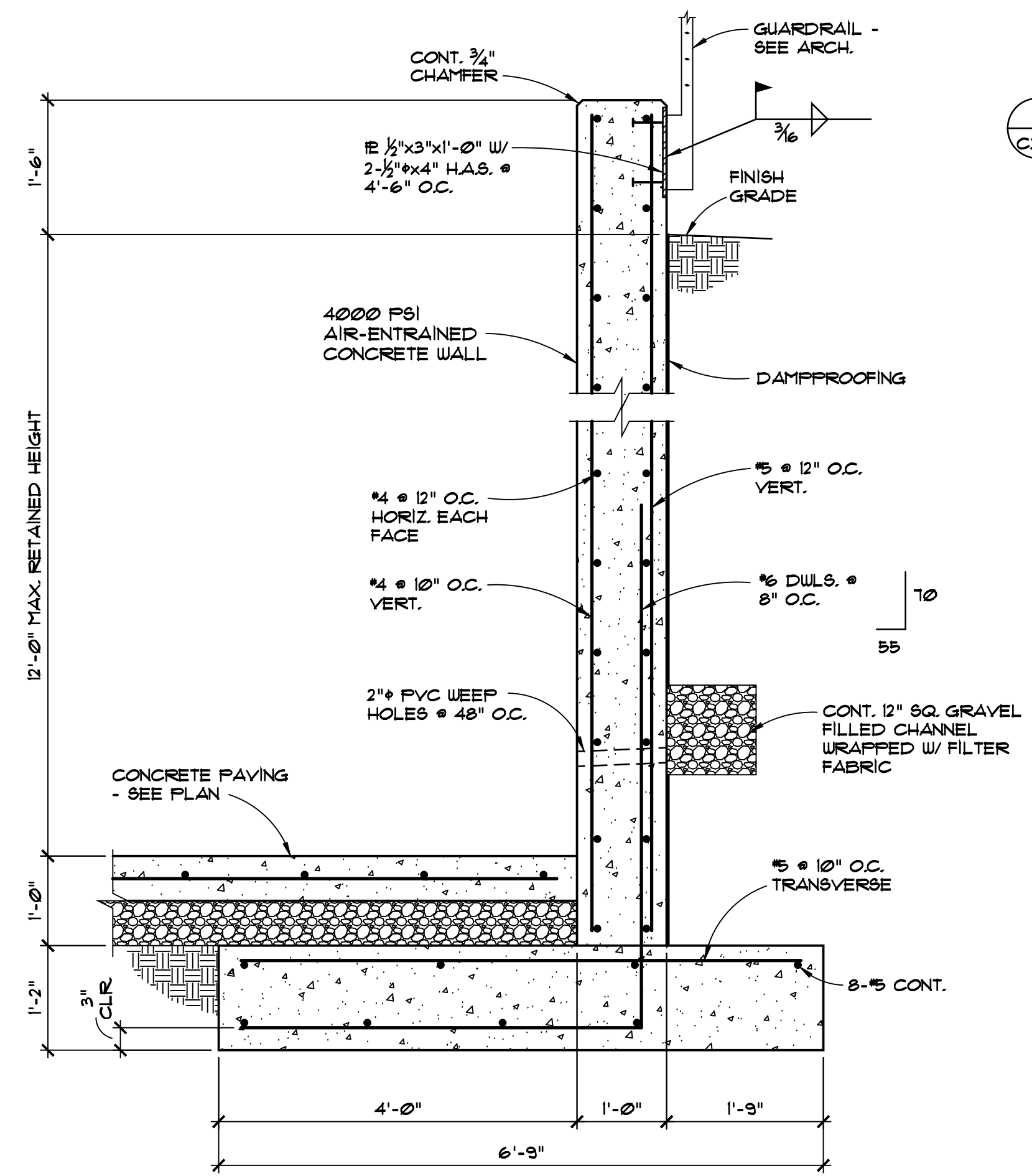
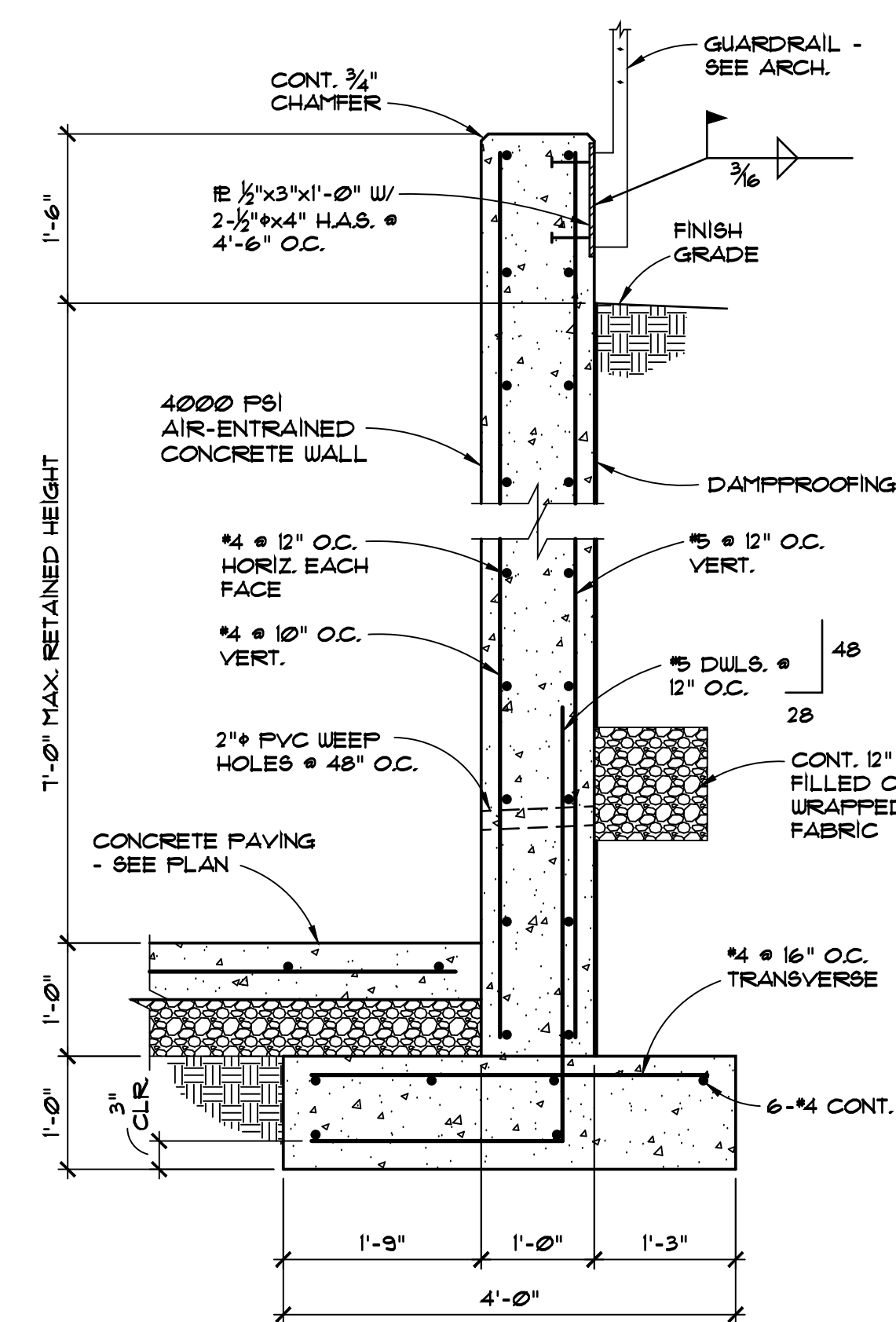
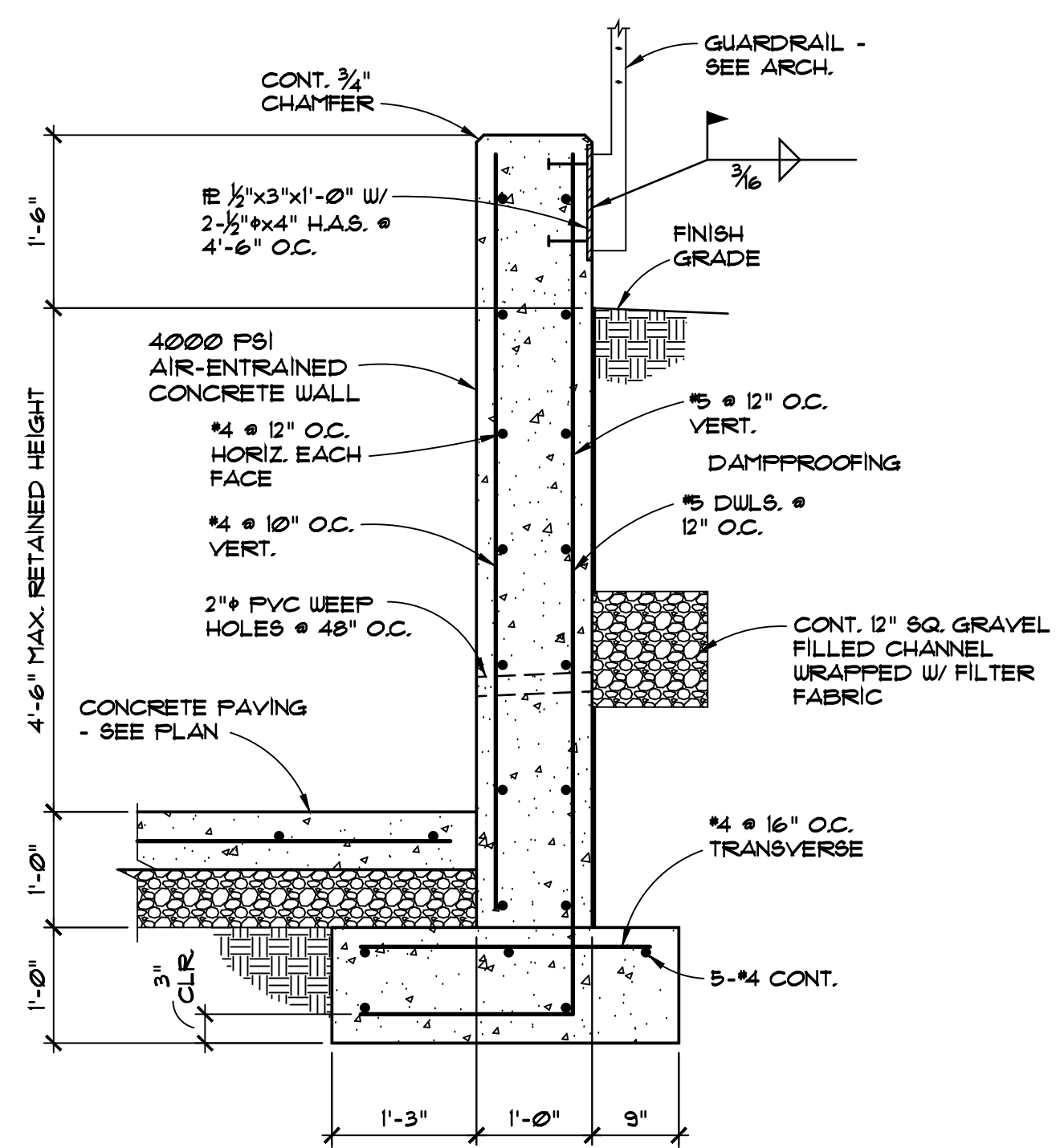
SITE CONDITION STATEMENT

I HAVE PERSONALLY VISITED THE SUBJECT SITE AND CERTIFY THAT THE EXISTING TOPOGRAPHY ON THIS PLAN IS AN ACCURATE REPRESENTATION OF CURRENT CONDITIONS. NO GRADING, FILLING OR EXCAVATION HAS OCCURRED ON THIS SITE SINCE THE AS-BUILT SURVEY OF THE EXISTING CONSTRUCTION WAS PREPARED.



LOWER LEVEL
GRADING and
DRAINAGE PLAN

date:
3-15-18
sheet:
c102

1
C301
TYPICAL CURB AND GUTTER SECTION
3/4" = 1'-0"2
C201
TYPICAL DROP INLET
3/4" = 1'-0"3
C301
OIL/WATER SEPARATION CATCH BASIN
3/4" = 1'-0"4
C301
CONCRETE PAVING SECTION
3/4" = 1'-0"5
C301
ASPHALT PAVING SECTION
3/4" = 1'-0"6
C301
TYPICAL SIDEWALK CULVERT
N.T.S.7
C301
CONCRETE CHANNEL
3/4" = 1'-0"8
C301
CONCRETE CHANNEL
3/4" = 1'-0"9
C301
CATCH BASIN WITH CURB
3/4" = 1'-0"10
C301
CATCH BASIN WITHOUT CURB
3/4" = 1'-0"11
C301
RETAINING WALL
3/4" = 1'-0"12
C301
RETAINING WALL
3/4" = 1'-0"13
C301
RETAINING WALL
3/4" = 1'-0"