

CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

February 28, 2018

John Jacquez, P.E.
Miller Engineering Consultants, Inc
3500 Comanche NE Bldg. F
Albuquerque, NM, 87107

**RE: Sundance Construction – Beverly Hills
Grading and Drainage Plan
Engineer's Stamp Date: 02/20/18
Hydrology File: B18D023**

Dear Mr. Jacquez:

PO Box 1293

Based upon the information provided in your resubmittal received 02/21/2018, the Grading and Drainage Plan is approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

NM 87103

Please provide a Private Facility Drainage Covenant per Chapter 17 of the DPM for first flush pond prior to Certificate of Occupancy. I have attached a word document of this for your use. Please submit this on the 4th floor where you drop off the DRC plans. A \$25 fee will be required.

www.cabq.gov

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: SUNDANCE CONSTRUCTION BEVERLY HILLS AVE. NE Building Permit #: _____ City Drainage #: _____
 DRB#: 1011397 EPC#: _____ Work Order#: _____
 Legal Description: LOT 29, BLOCK 4, ALBUQUERQUE ACRES UNIT B
 City Address: BEVERLY HILLS AVE. NE, ALBUQUERQUE, NM (BETWEEN SAN MATEO & I-25)
 Engineering Firm: MILLER ENGINEERING CONSULTANTS, INC Contact: _____
 Address: 3500 COMANCHE NE, BLDG. F, ALBUQUERQUE, NM 87107 JOHN JACQUEZ
 Phone#: 505-888-7500 Fax#: 505-888-3800 E-mail: JJACQUEZ@MECNM.COM
 Owner: _____ Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____
 Architect: VIGIL & ASSOCIATES Contact: DANIEL BARIEN
 Address: 4477 IRVING NW, SUITE A, ALBUQUERQUE, NM 87114
 Phone#: 505-890-5030 Fax#: 505-890-5031 E-mail: DANIEL@VA-ARCHITECTS.COM
 Other Contact: _____ Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/DRAINAGE
☐ TRAFFIC/TRANSPORTATION
☐ MS4/EROSION & SEDIMENT CONTROL

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)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

CHECK 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

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

DATE SUBMITTED: 2/21/18 By: [Signature]

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

PRE-DESIGN MEETING

OTHER (SPECIFY)

Appr Concept Plan
HAVE FROM DRG



February 13, 2018

City of Albuquerque
Planning Department
Development and Building Services
P.O. Box 1293
Albuquerque, NM 87103

Attn: Renee C. Brissette, P.E. CFM, Senior Engineer, Hydrology Planning Dept.

**RE: Sundance Construction -Beverly Hills
Grading and Drainage Plan
Engineer's Stamp Date: 01124/18
Hydrology File: 818D023**

Dear Renee,

This letter is in response to your comments by letter dated January 30, 2018. The comments have been addressed as follows:

Sheet C-100:

1. Please provide the weir calculations for the curb cuts.

See attached.

Sheet C-101:

2. Key Note 7 states approximate location of property line. All property lines and existing topographic survey information must be accurate and not approximated. At the northwest corner, it appears that the adjacent pond is on this property. Please submit a surveyed property. If the property lines are properly surveyed, then delete the word approximate location of property line from Key Note 7.

See sheet C-101.

3. Please provide a written agreement from Lot 28 property Owner stating that grading can be conducted on their property for the benefit of Lot 29. If an agreement cannot be obtained, then the swale to divert off-site drainage to Beverly Hills will have to be within the project's boundary.

IN PROCESS.

4. Please add the flowline information at the start of the diversion swale at the east side of the property.

See sheet C-101.

5. Key Note 22. This pond is just pointing to an open area. Is there supposed to be a first flush pond here?? It appears that all first flush volume is included in the pond to the southwest corner of the property.

See sheet C-101.

6. Section A-A. Please show the property line and dimension of the wall from the property line.

See sheet C-101.

7. Section A-A. Per DPM Ch. 22.5.B, grading and construction of retaining walls at or near the property line must demonstrate that the adjacent property is not damaged or its use constrained. Any such encroachment by the wall or grading must be accompanied by written permission of both landowners. Therefore the wall may have to be moved away so that the footer does not impede the adjacent property.

Added some notes for clarity. See sheet C-101.

8. Please show the half street, storm drain, and inlet which is to be constructed with the work order. Please add a note that all work within Beverly Hills Ave will be part of Work Order #722084.

See sheet C-101.

Sheet C-501:

9. Where is the typical pond section detail used? If not needed, then please just delete.

Removed.

If you have any questions or need any additional information, please feel free to contact our office.

MILLER ENGINEERING CONSULTANTS, INC.

Verlyn A. Miller, P.E.
President

VAM:vam
Enclosures
cc: File

Worksheet for Broad Crested Weir - 1

Project Description

Flow Element:	Broad Crested Weir
Solve For:	Discharge

Input Data

Headwater Elevation:	64.82	ft
Crest Elevation:	64.16	ft
Tailwater Elevation:	64.50	ft
Crest Surface Type:	Paved	
Crest Breadth:	7.00	ft
Crest Length:	3.00	ft

Results

Discharge:	4.86	ft ³ /s
Headwater Height Above Crest:	0.66	ft
Tailwater Height Above Crest:	0.34	ft
Weir Coefficient:	3.02	US
Submergence Factor:	1.00	
Adjusted Weir Coefficient:	3.02	US
Flow Area:	1.98	ft ²
Velocity:	2.46	ft/s
Wetted Perimeter:	4.32	ft
Top Width:	3.00	ft

THE HUGHES FAMILY LLC



Rocky & Chris Hughes
9404 Sally Ann Ln. NE
Albuquerque, NM 87122

February 27, 2018

To whom it may concern,

Please see attached the document stating ownership of said property to the east of the building site. I also grant permission to Vigil & Associates and Sundance Construction LLC to design and construct a swale on that property in order to make our grading and drainage plan work. Please contact me with any other questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Scot L. Hughes".

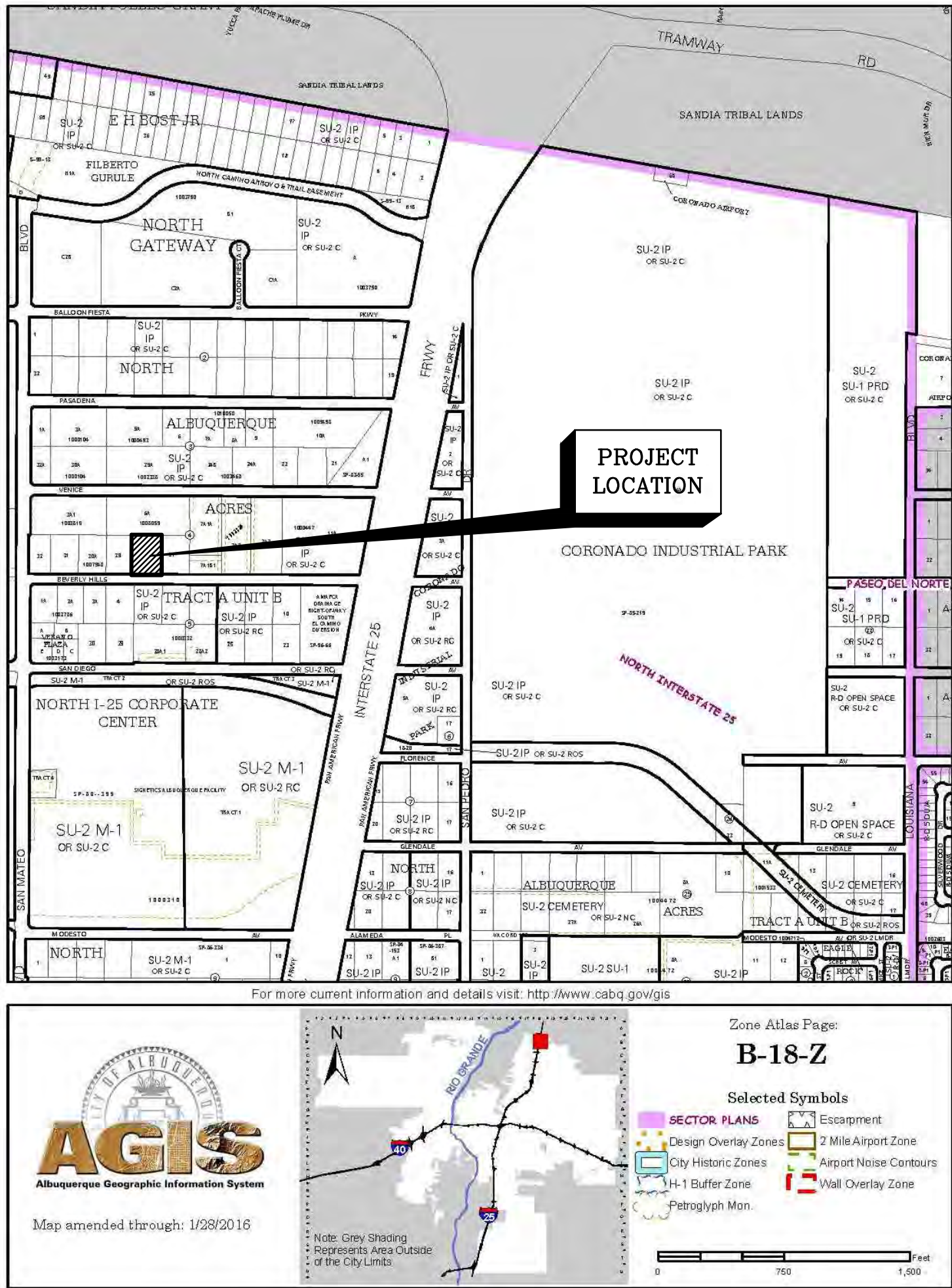
The Hughes Family LLC
9404 Sally Anne Lane NE
Albuquerque, NM 87122
505-858-1177
Scot L. Hughes, Member

WEA PROJECT NO. 17-015

C

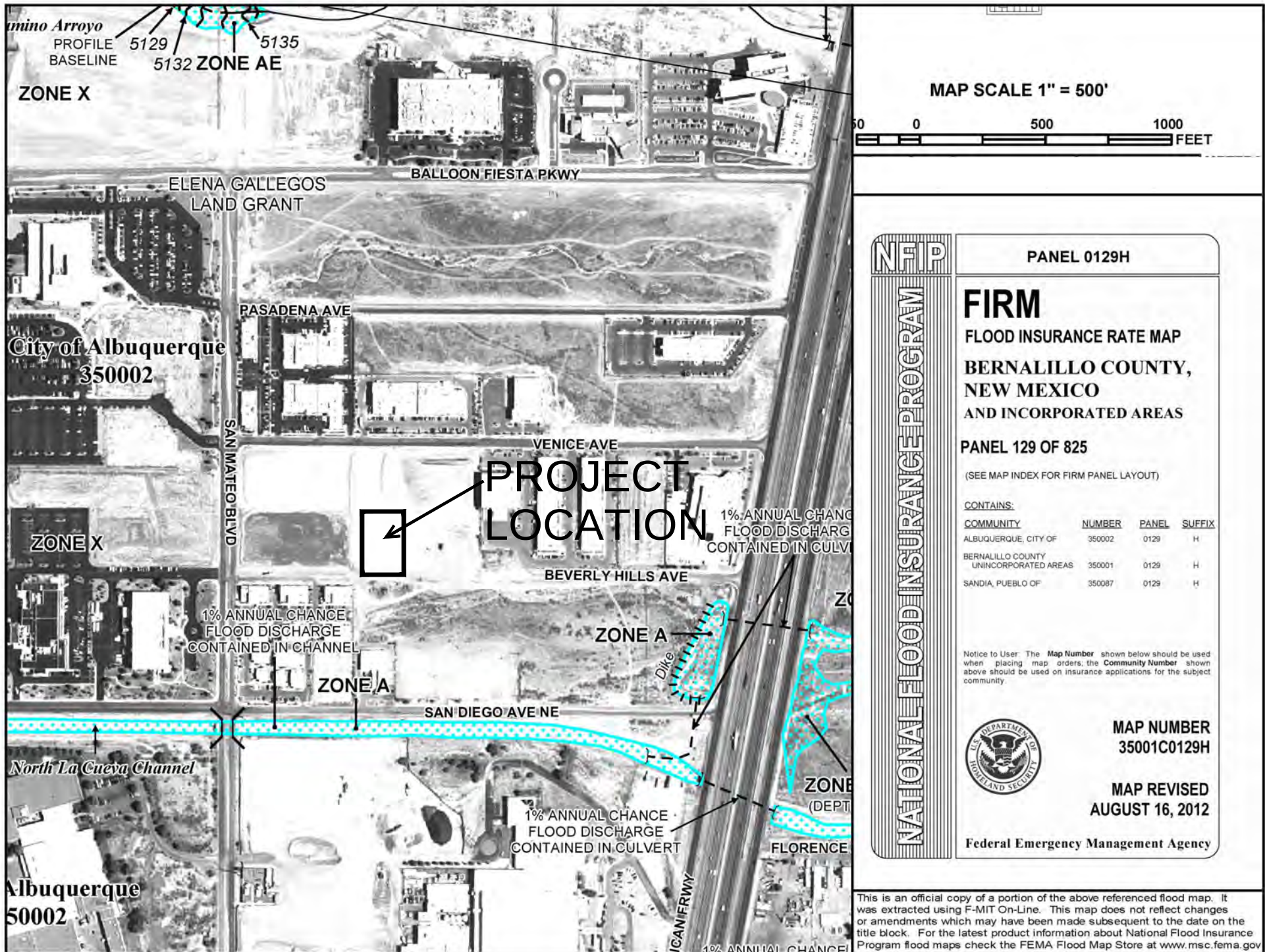
B

A



B1 VICINITY MAP

ZONE ATLAS MAP B-18-Z



A1 FLOOD ZONE MAP

FLOOD ZONE MAP: FMS5001C0129H

SITE LOCATION

BEVERLY HILLS IS LOCATED AT 5401 BEVERLY HILLS N.E. IN ALBUQUERQUE, NEW MEXICO. THE UNDEVELOPED PROPERTY IS BOUNDED ON THE SOUTH AND EAST BY UNDEVELOPED LOTS AND BORDERED ON THE NORTH, AND WEST BY COMMERCIAL BUILDINGS.

EXISTING ON SITE CONDITIONS

THE SITE IS UNDEVELOPED WITH NOT MUCH VEGETATION JUST DISTURBED SOIL. THE SITE DOES NOT HAVE ANY ACCESS POINTS OR DRIVEWAYS CURRENTLY. BEVERLY HILLS IS UNIMPROVED ON THE SOUTH FRONTAGE OF THE SITE. THERE IS A DIRT ROAD ON THE SOUTH FRONTAGE. THE SITE GENERALLY SLOPES FROM THE EAST TO THE WEST TOWARD NORTHEAST AND SOUTHEAST PROPERTY CORNERS. THERE IS AN EXISTING BERM IN THE NORTHEAST CORNER TOWARDS THE NORTHWEST CORNER OF THE PROPERTY. THERE ARE NO DRAINAGE STRUCTURES ON THE PROPERTY. STORM WATER FLOWS TOWARDS THE NORTHWEST CORNER OF THE PROPERTY VIA SURFACE FLOW. THE PROPERTY HAS ONE DRAINAGE BASIN, WHICH IS IDENTIFIED AS BASIN "A" IN THE HYDROLOGY CALCULATIONS TABLES ON THIS SHEET. THIS REPORT PROVIDES INFORMATION FOR EXISTING HYDROLOGY CONDITIONS AND PROPOSED CONDITIONS HYDROLOGY. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN A.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A 25,700 SQUARE FOOT BUILDING, ASSOCIATED CONCRETE FLATWORK, SIDEWALKS, ASPHALT PARKING LOT, AND LANDSCAPING. THE PROPOSED GRADING AND DRAINAGE PLAN CONTAINS THE SITE INTO ONE DRAINAGE BASIN, BASIN "A". THIS DRAINAGE BASIN SURFACE FLOWS INTO BEVERLY HILLS N.E. VIA SURFACE FLOW. THE ACCESS ROAD ALONG THE SOUTH BASIN TO WATER HARVEST AREAS AT THE SOUTHEAST AND SOUTHWEST CORNERS, THEN DISCHARGES THRU A SIDEWALK CULVERT INTO THE PROPOSED BEVERLY HILLS ROADWAY TOWARDS A CURB CUT AND RIP RAP RUNDOWN TO THE SIDE OF PROPERTY. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE PROPOSED PEAK DISCHARGE AND RUNOFF VOLUME FOR ALL THREE BASINS.

OFFSITE FLOWS

THERE IS AN UNDEVELOPED LOT LOCATED EAST OF SITE AND SOUTHERN EDGE OF THE PROPERTY. THE FLOWS FROM THIS SITE ARE BEING DIVERTED VIA EARTHEN SWALE TO SOUTH INTO BEVERLY HILLS RIGHT OF WAY, THUS NOT AFFECTING OUR SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR THE PROPERTY. EXISTING CONDITIONS HAD ONE DRAINAGE BASIN, BASIN "A". AS A WHOLE, THE PROPERTY'S RUNOFF VOLUME AND PEAK DISCHARGE VALUES INCREASED. THE RUNOFF VOLUME INCREASED FROM 0.008 ACRE-FEET TO 0.173 ACRE-FEET, AS A WHOLE. THE PEAK DISCHARGE INCREASED FROM 2.6 CUBIC FEET PER SECOND TO 4.0 CUBIC FEET PER SECOND, AS A WHOLE.

THE PROPOSED GRADING IMPROVEMENTS WILL INCLUDE DRAINAGE SWALES, CURB AND GUTTER, AND CURB CUTS ALLOWING STORMWATER INTO AND OUT OF THE PROPOSED WATER HARVESTING AREAS. THE WATER HARVESTING AREAS WILL BE USED TO MANAGE THE FIRST FLUSH AS REQUIRED BY THE RECENT CITY OF ALBUQUERQUE DRAINAGE ORDINANCE CHANGES. THE VOLUME OF THE FIRST FLUSH FOR BASIN "B" (0.44-0.1 INCHES * 27500)= 780 CUBIC FEET. THE WATER HARVEST 1 VOLUME = 988 CUBIC FEET. THEREFORE, WATER HARVEST POND VOLUME = 988 CUBIC FEET > 780 CUBIC FEET. THEREFORE, THE FIRST FLUSH IS CONTAINED. ALL POSSIBLE IMPERVIOUS AREAS WILL BE DISCHARGED THROUGH THE PROPOSED WATER HARVEST AREA.

GENERAL NOTES:

- EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY TERRA LAND SURVEYS LLC. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- ALBUQUERQUE GEODETIC REFERENCE SYSTEM STATIONS (AGRS) USED:
 - AGRS STATION "14-J22" DATA
FOUND STANDARD ALUMINUM DISK
NAD 83 NEW MEXICO CENTRAL ZONE STATE PLANE COORDINATES
NORTHING: 1,487,017.69 US FEET EASTING: 1,561,191.23 US FEET
ELEV.= 5,576.441 US FEET
COMBINED GROUND TO GRID FACTOR = 0.999644295
DELTA ALPHA = (-) 0'09'08.03"
 - AGRS STATION "10-K21" DATA
FOUND STANDARD ALUMINUM DISK
NAD 83 NEW MEXICO CENTRAL ZONE STATE PLANE COORDINATES
NORTHING: 1,485,161.27 US FEET EASTING: 1,561,095.89 US FEET
ELEV. = 5,557.514 US FEET
COMBINED GROUND TO GRID FACTOR = 0.999645218
DELTA ALPHA = (-) 0'09'08.58"
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE SUBJECT PROPERTY (AS SHOWN HEREON) APPEARS TO LIE WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.) IN ACCORDANCE WITH THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP NO. 35001C 0129H, EFFECTIVE DATE 9-26-2008.
- ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
- THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.

- THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%. ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
- ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

ENVIRONMENTAL NOTE

THIS PROJECT IS LOCATED IN A FORMER LANDFILL. THE SITE HAS UNDERGONE ENVIRONMENTAL REMEDIATION, BUT PROBES AND OTHER MONITORING REQUIREMENTS MUST BE PROTECTED AND MAINTAINED UNTIL SHOWN NOT TO BE NEEDED. CONTACT PAUL OLSON, COA ENVIRONMENTAL HEALTH, (505)-768-2633.

ANY TRASH ENCOUNTERED DURING EXCAVATION ACTIVITIES SHALL BE REMOVED AND TAKEN BY A HAULER CERTIFIED BY THE STATE OF NEW MEXICO ENVIRONMENT DEPARTMENT SOLID WASTE BUREAU (NMEDSWB) FOR HAULING OF EXCAVATED SOLID WASTE. TRASH REMOVAL MUST OCCUR ON THE SAME DAY AS EXCAVATION AND TAKEN TO CERRO COLORADO LANDFILL UNLESS IT IS PROTECTED BY A METHOD ACCEPTABLE TO THE NMEDSWB. CONTACT PAUL OLSON WITH THE CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT IF LANDFILL MATERIAL IS ENCOUNTERED (505-768-2633). LANDFILL MATERIAL CAN PRODUCE DANGEROUS GASES AND IF WASTE IS ENCOUNTERED AIR MONITORING FOR WORKER SAFETY MAY BE NECESSARY. LANDFILL MATERIAL SHOULD BE SEGREGATED FROM SOIL AND DIRT SO ONLY LIMITED QUANTITIES OF DIRT ARE TAKEN TO CERRO COLORADO.

WATER HARVEST VOLUMES

WATER HARVEST EAST AREA				
Pond Rating Table				
Side Slope 2:1				
Depth	Area	Volume	Cum Volume	
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)
63.16	391	0.009	0.000	0.000
64	690	0.016	0.010	0.010
64.16	998	0.023	0.003	0.014

DRAINAGE DATA

Precipitation Zone 3 - 100-year Storm						P(360) =	2.6 in	P(1440) =	3.1 in
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
		A	B	C	D				
Existing Conditions									
A	0.89	0.30	0.00	0.59	0.00	1.08	0.080	0.080	2.60
Total	0.89								2.60
Proposed Conditions									
A	0.89	0.00	0.00	0.30	0.59	2.00	0.148	0.173	4.00
Total	0.89								4.00

Precipitation Zone 3 - 10-year Storm				P(360) = 1.73 in		P(1440) = 2.07 in			
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(10-6) (af)	V(10-24) (af)	Q'(10) (cfs)
		A	B	C	D				
Existing Conditions									
A	0.89	0.30	0.00	0.59	0.00	0.48	0.035	0.035	1.35
Total	0.89								1.35
Proposed Conditions									
A	0.89	0.00	0.00	0.30	0.59	1.20	0.089	0.106	2.60
Total	0.89								2.60

SUNDANCE CONSTRUCTION

BEVERLY HILLS AVE NE

SUNDANCE CONSTRUCTION

date: JANUARY 24, 2018
drawn by: V&A
checked by: RRV
file name: G & D Plan_101817
revisions:

C-100

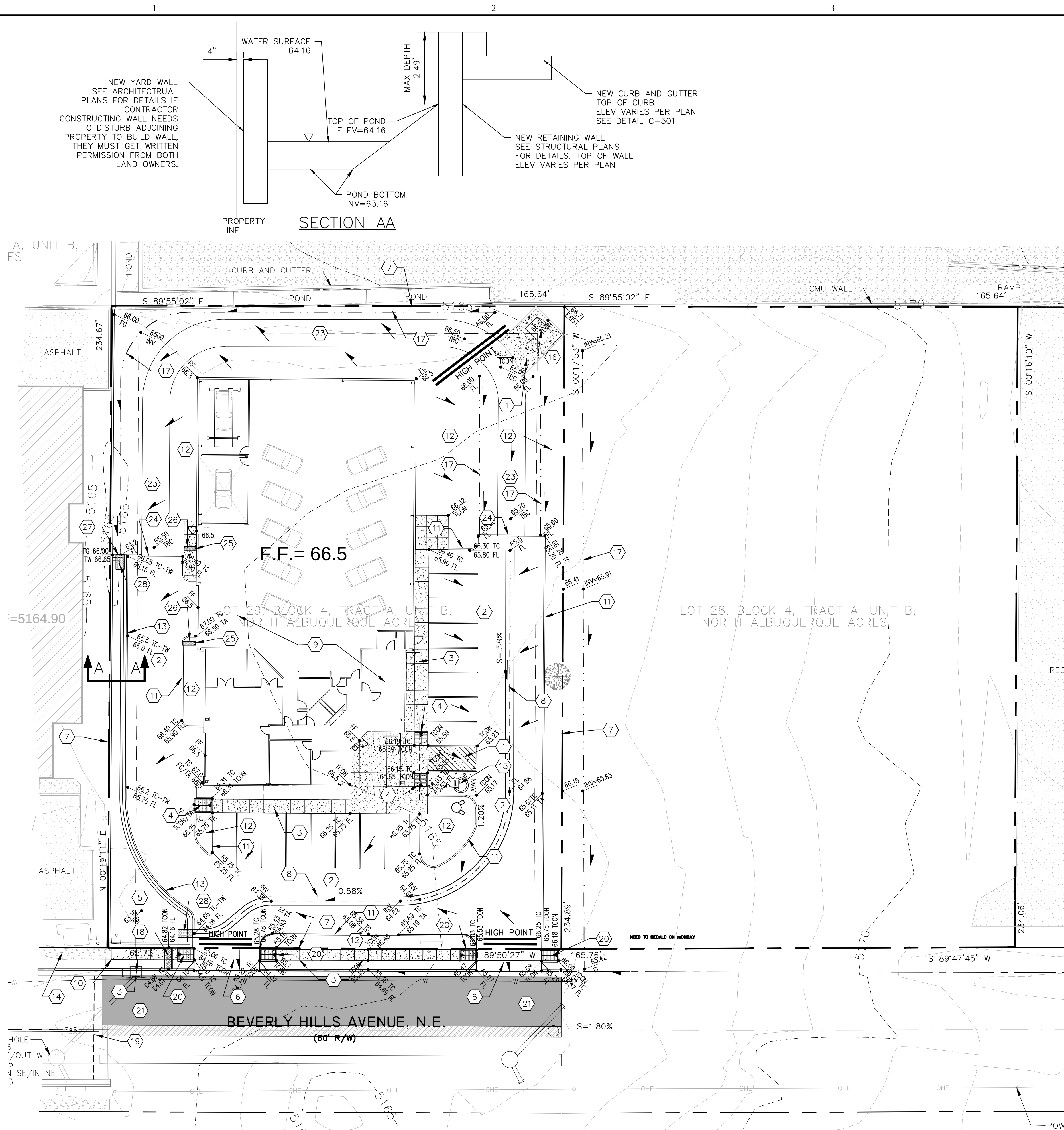
project no. 17-015

GRADING AND DRAINAGE HYDROLOGY REPORT

VIGIL & ASSOCIATES
ARCHITECTURAL GROUP, P.C.
WWW.VA-ARCHITECTS.COM



MILLER ENGINEERING CONSULTANTS
Engineers • Planners
3500 COMANCHE, NE
BUILDING F
ALBUQUERQUE, NM 87107
(505) 886-3800
(505) 886-3800 (FAX)
WWW.MECNM.COM



A1 GRADING AND DRAINAGE PLAN
SCALE: 1"=20'

LEGEND:

38.00 FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)	==	GRADE BREAK-HIGH POINT
MATCH (95.19)	MATCH EXISTING ELEVATIONS		
TC ON	TOP OF CONCRETE	SD	SWALE
FL	FLOW LINE, CURB		
INV	INVERT		
FG	FINISH GRADE	5895	STORM DRAIN LINE
TBC	TOP OF BASE COURSE		
TC	TOP OF CURB	5895	PROPOSED MAJOR CONTOUR
TG	TOP OF GRATE		PROPOSED MINOR CONTOUR
TA	TOP OF ASPHALT		EXISTING MAJOR CONTOUR
	FLOW ARROW		EXISTING MINOR CONTOUR
			TOP OF CUT SLOPE

GRADING AND DRAINAGE NARRATIVE

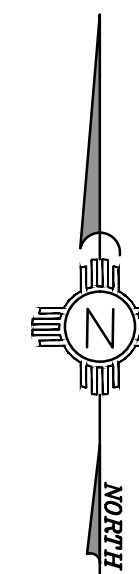
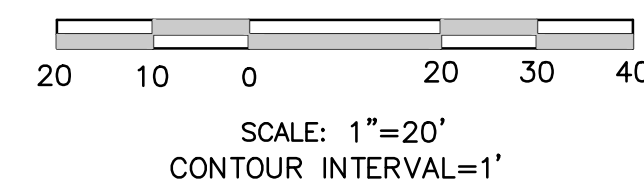
THE EXISTING PROPERTY FOR BEVERLY HILLS IS LOCATED AT 5401 BEVERLY HILLS AVE. N.E. THE SITE IS ACCESSED FROM THE SOUTH SIDE FROM BEVERLY HILLS AVE. N.E. THE SITE CONSISTS OF A VACANT LOT WITH NO DEVELOPMENT. THERE IS AN EXISTING ROADWAY (BEVERLY HILLS AVE.) ON THE SOUTH SIDE. THERE IS AN EXISTING COMMERCIAL DEVELOPMENT TO THE NORTH AND WEST SIDE. THERE IS AN ADJACENT VACANT LOT LOCATED ON THE EAST SIDE OF THE PROPERTY. THE LAND IS GENERALLY FLAT AND SLOPES FROM THE NORTHEAST TO THE SOUTHWEST. THERE ARE EXISTING FLOWS COMING FROM THE VACANT LOT LOCATED EAST OF THE PROPERTY. THESE FLOWS SHEET FLOW ONTO THE PROPERTY. THE PROPOSED BUILDING WILL BE CONSTRUCTED NEAR THE CENTER OF THE SITE WITH AN ASPHALT PARKING LOT LOCATED ON THE EAST AND THE SOUTH OF THE PROPOSED BUILDING.

THE PROPOSED GRADING IMPROVEMENTS WILL INCLUDE STANDARD CURB AND GUTTER, WITH CURB CUTS AND RUNDOWNS ALLOWING STORMWATER INTO PROPOSED WATER HARVESTING AREAS. THESE WATER HARVESTING AREAS WILL BE USED TO MANAGE THE 90TH PERCENTILE STORM EVENTS (REQUIRED VOLUME = (0.33 IN. * 25,811 SF)/12 = 710 CF, 0.016 AC-FT. THE PROPOSED WATER HARVEST AREAS VOLUME IS APPROXIMATELY 0.022 AC-FT. WHICH IS GREATER THAN 0.016 AC-FT, AS REQUIRED BY THE RECENT CITY OF ALBUQUERQUE DRAINAGE ORDINANCE CHANGES. ALL ROOF DRAINAGE AND PROPOSED ASPHALT PARKING AREAS WILL DISCHARGE INTO WATER HARVEST AREAS LOCATED AT THE EAST AND WEST SIDES OF THE PROJECT SITE.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A FEMA DESIGNATED FLOOD ZONE AS PER FEMA MAPS.

KEYED NOTES:

- 1 NEW HEAVY DUTY CONCRETE PAVEMENT SECTION. SEE SECTION DETAILS ON ARCHITECTURAL PLANS AND IN THE GEOTECHNICAL REPORT.
- 2 NEW HEAVY DUTY HOT MIX ASPHALT PAVEMENT SECTION. SEE SECTION DETAILS ON SHEET C-501.
- 3 NEW CONCRETE SIDEWALK AS PER COA STANDARD DWG 2430 (FOR WORK IN CITY R/W) AND ARCHITECTURAL PLANS FOR ONSITE SIDEWALK. CONTRACTOR SHALL SUBMIT A JOINT PATTERN TO THE PROJECT ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 4 NEW TYPE A HANDICAP RAMP, SEE DETAIL ON SHEET C-503.
- 5 NEW WATER HARVEST AREA 1. TOP=64.66, INV=63.16, EMERGENCY SPILLWAY SIDEWALK CULVERT INV=64.16. SEE DETAIL ON SHEET C-501.
- 6 NEW CONCRETE DRIVEPAD. AS PER NMDOT DETAIL 2-B ON SHEET C-502.
- 7 LOCATION OF PROPERTY LINE. NEW PERIMETER YARD WALL. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 8 NEW CONCRETE VALLEY GUTTER. SEE COA STANDARD DWG 2420.
- 9 NEW BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 10 SAWCUT EXISTING SIDEWALK TO NEAREST CONSTRUCTION JOINT AND MATCH WITH NEW CONCRETE SIDEWALK.
- 11 NEW CONCRETE HEADER CURB. SEE SHEET C-501 FOR DETAILS.
- 12 LANDSCAPE AREA. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 13 NEW RETAINING WALL AND CURB AND GUTTER SEE SECTION A-A. SEE SHEET C-501 FOR CURB AND GUTTER DETAIL. SEE STRUCTURAL PLANS FOR RETAINING WALL DETAIL.
- 14 EXISTING SIDEWALK TO REMAIN.
- 15 NEW HANDICAP PARKING WITH PARKING BUMPER, PAINTED MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE MUTCD. CONTRACTOR SHALL SUBMIT A PAVEMENT MARKING LAYOUT TO PROJECT ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
- 16 NEW TRASH ENCLOSURE, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 17 NEW EARTHEN SWALE. SEE DETAIL SHEET C-501.
- 18 NEW 36" SIDEWALK CULVERT 1 AND NEW EMERGENCY SPILLWAY AS PER COA STANDARD DWG 2236. INV(N)= 64.16 INV(OUT)= 64.01.
- 19 MATCH NEW ASPHALT WITH TOP OF EXISTING ASPHALT. CONTRACTOR TO FIELD VERIFY ELEVATION PRIOR TO CONSTRUCTION.
- 20 NEW TYPE B HANDICAP RAMP, SEE DETAIL SHEET C-502.
- 21 ALL WORK WITHIN BEVERLY HILLS AVE. WILL BE PART OF WORK ORDER #722084.
- 22 NOT USED.
- 23 NEW BASE COURSE PAVEMENT SECTION. SEE DETAIL SHEET C-501.
- 24 NEW FLUSH CURB. SEE DETAIL SHEET C-501.
- 25 NEW ROOF DRAIN. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 26 NEW SIDEWALK CULVERT PER COA STANDARD DWG 2236. COORDINATE WITH ROOFING CONTRACTOR TO MANUFACTURE COVER WITH OPENING FOR DOWNSPOUT AT BUILDING.
- 27 PLACE 2' CUT IN RETAINING WALL FOR SWALE TO ENTER POND.
- 28 PLACE RIP RAP RUNDOWN.

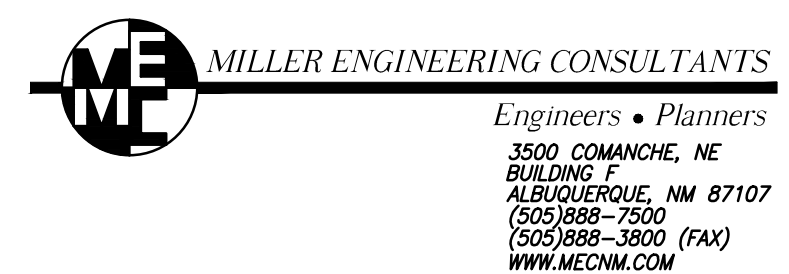
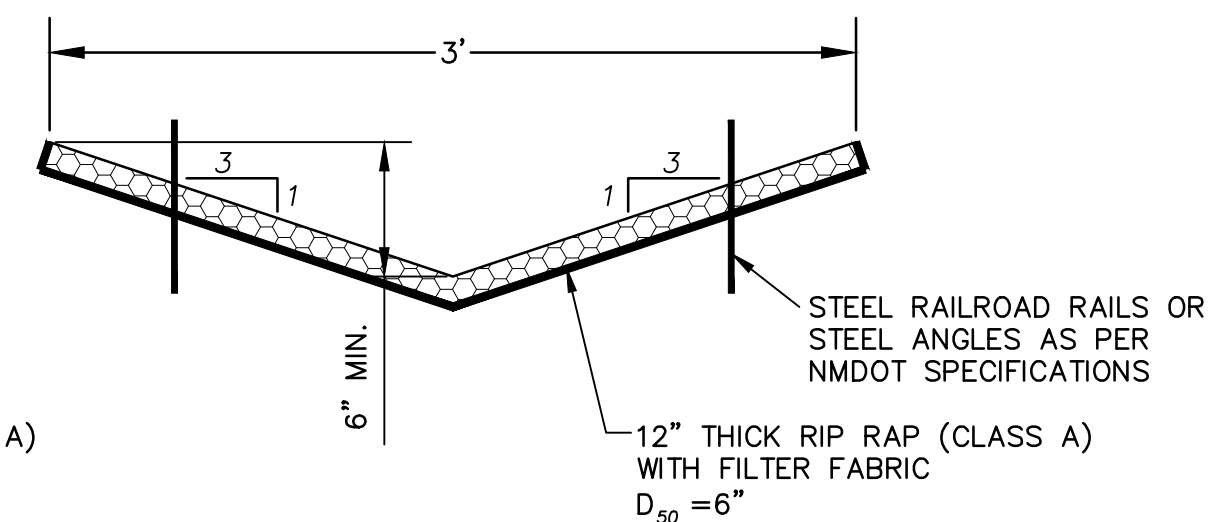
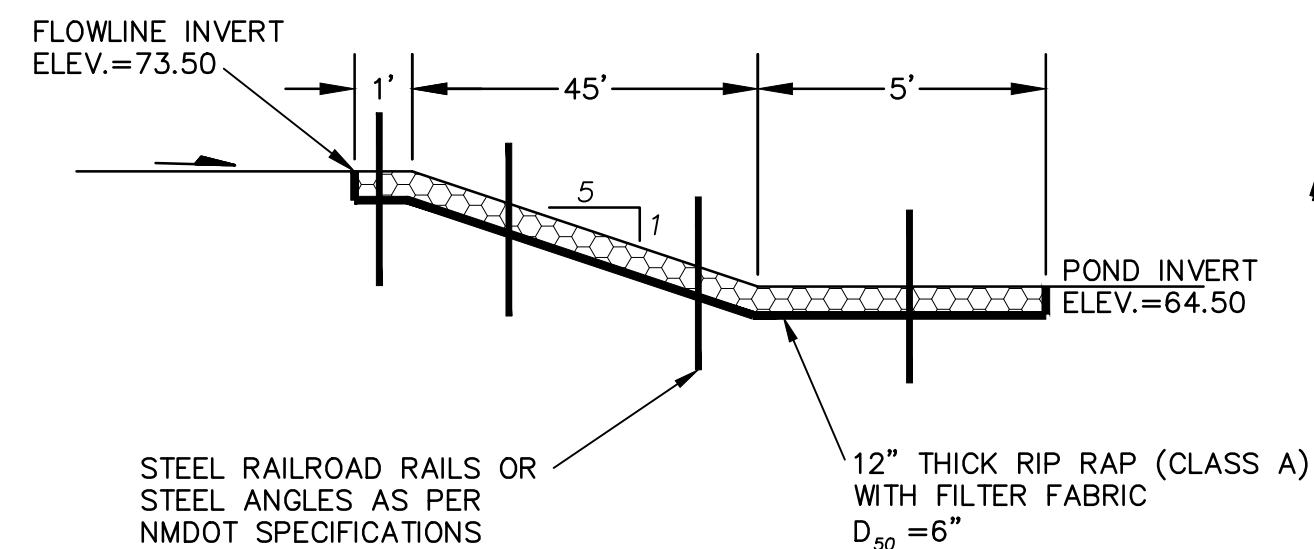
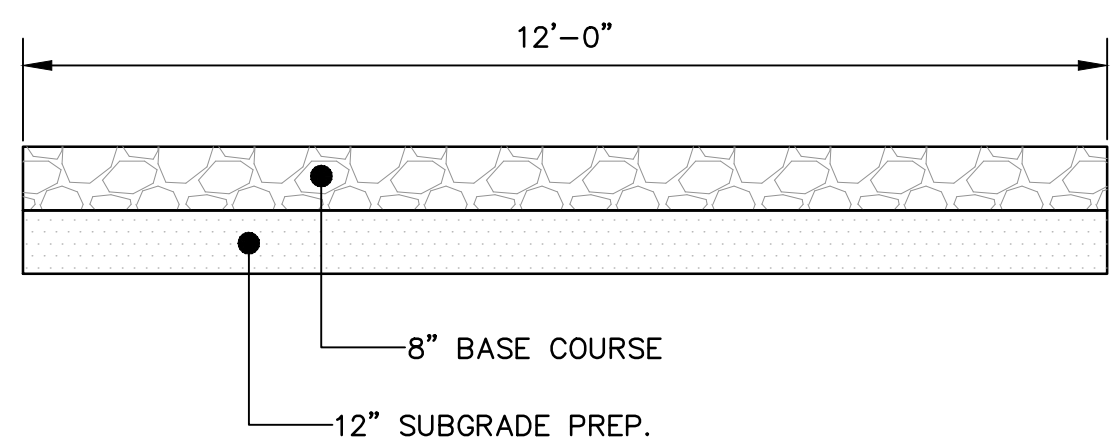
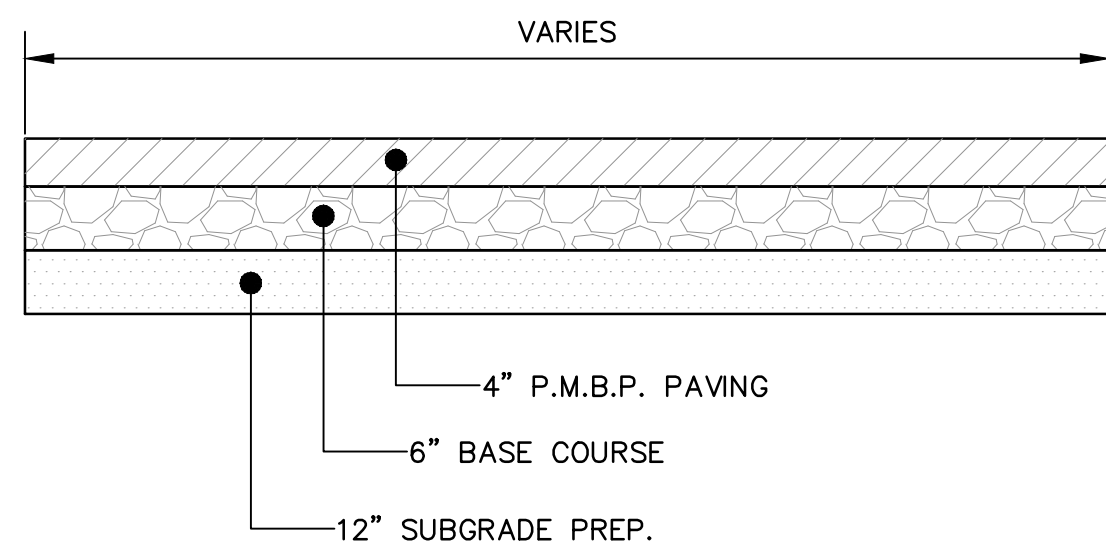
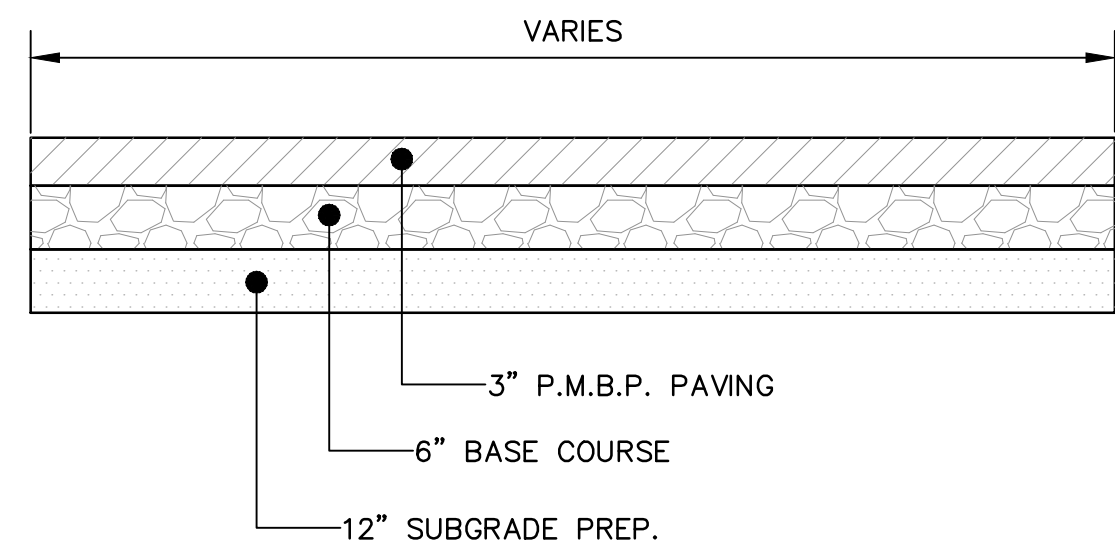
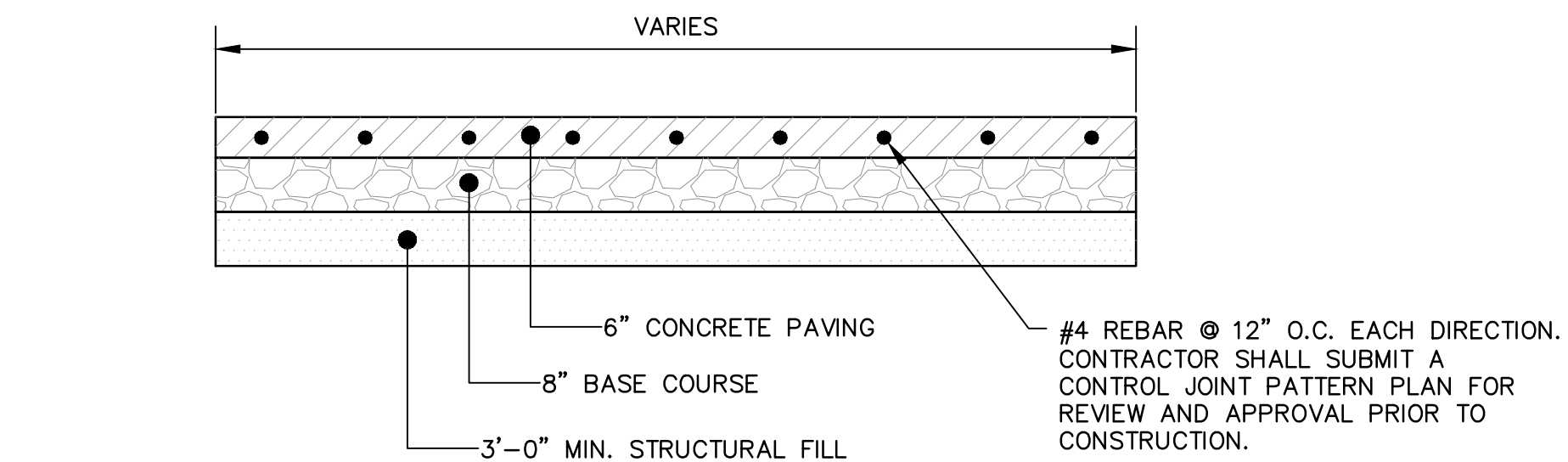
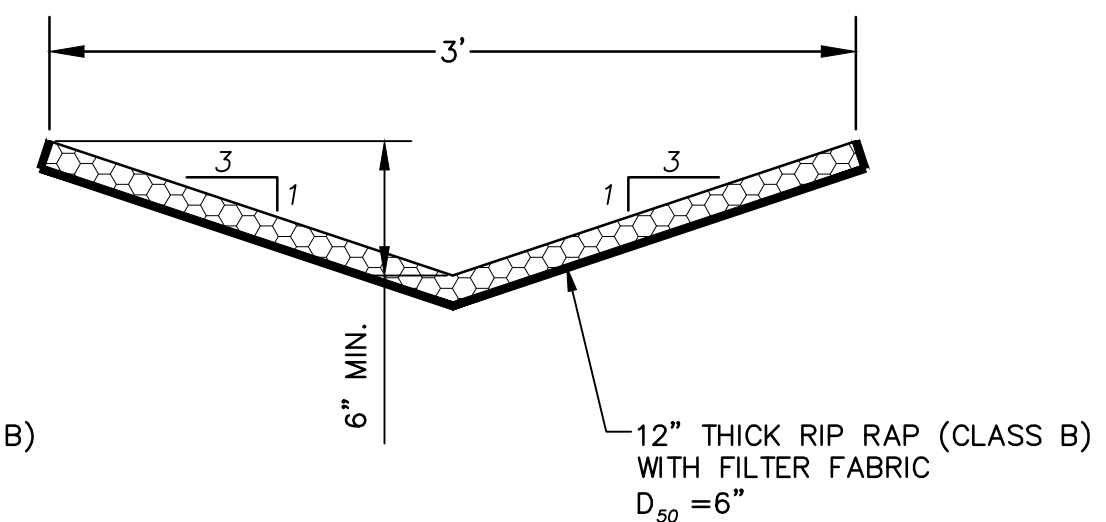
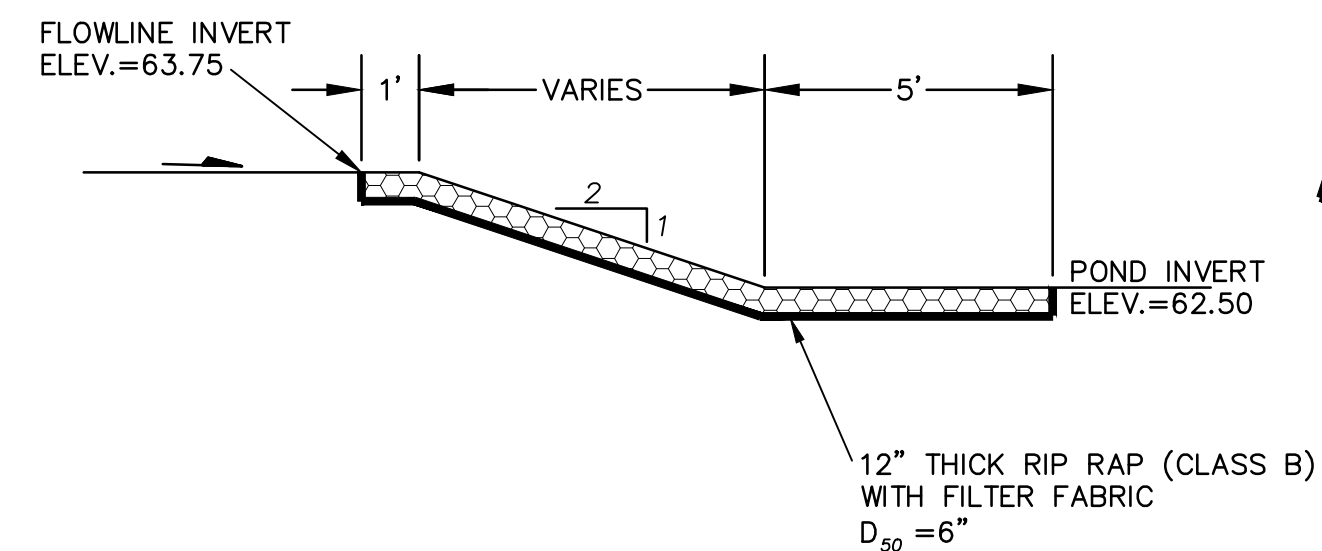
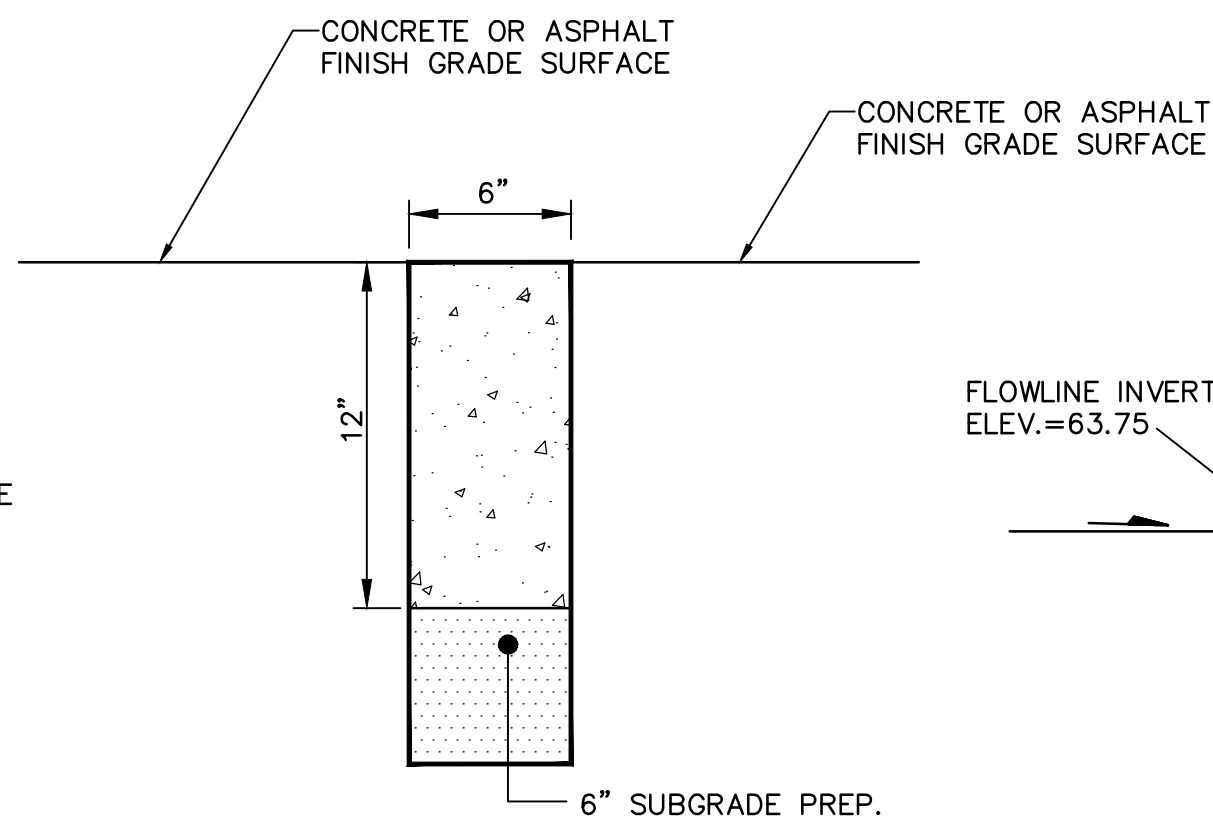
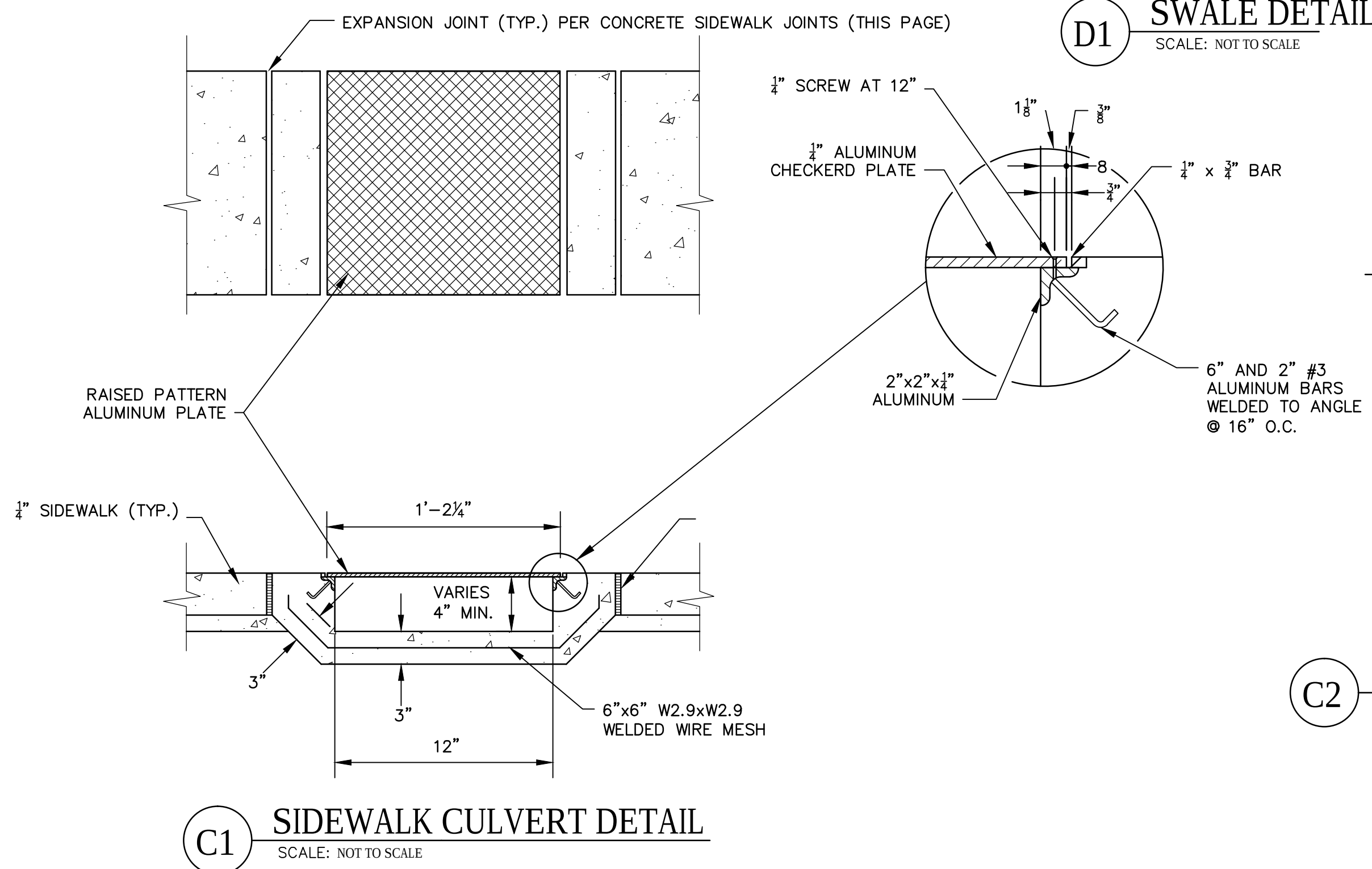
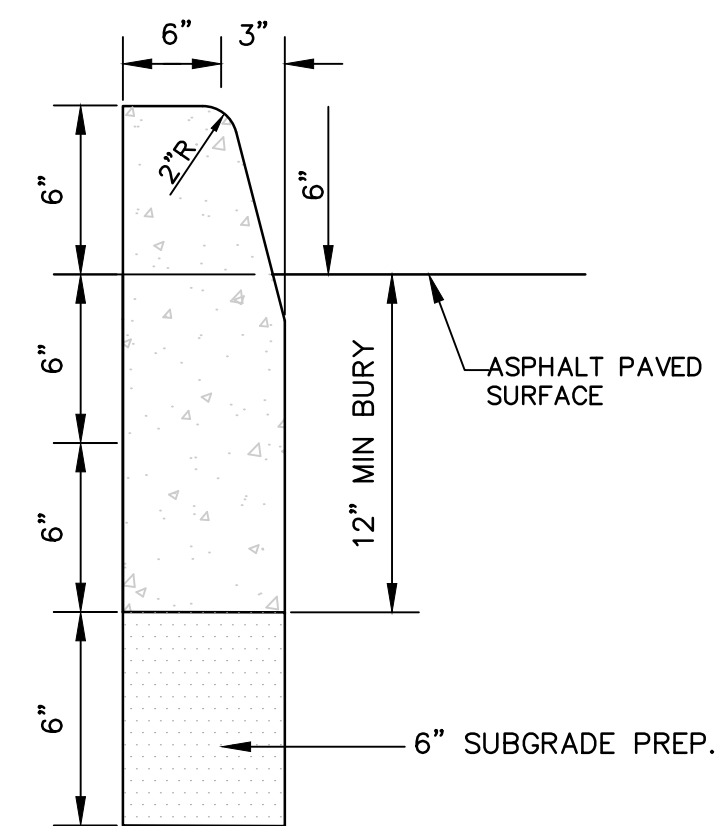
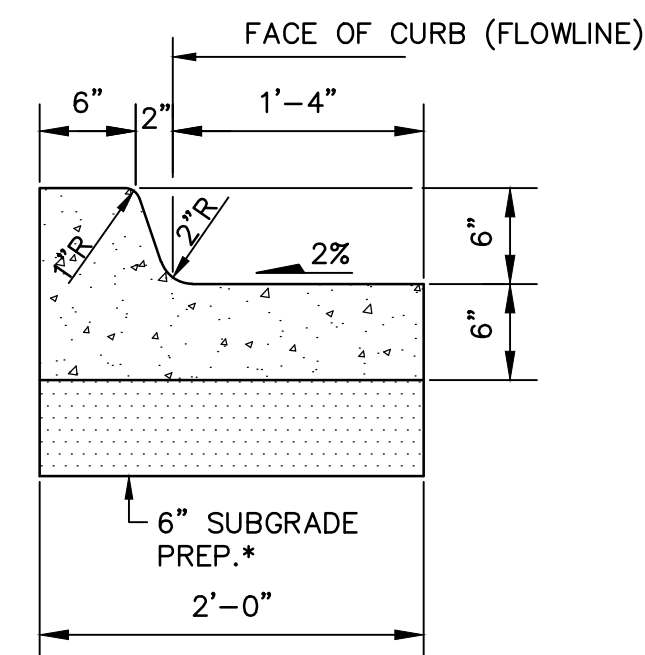
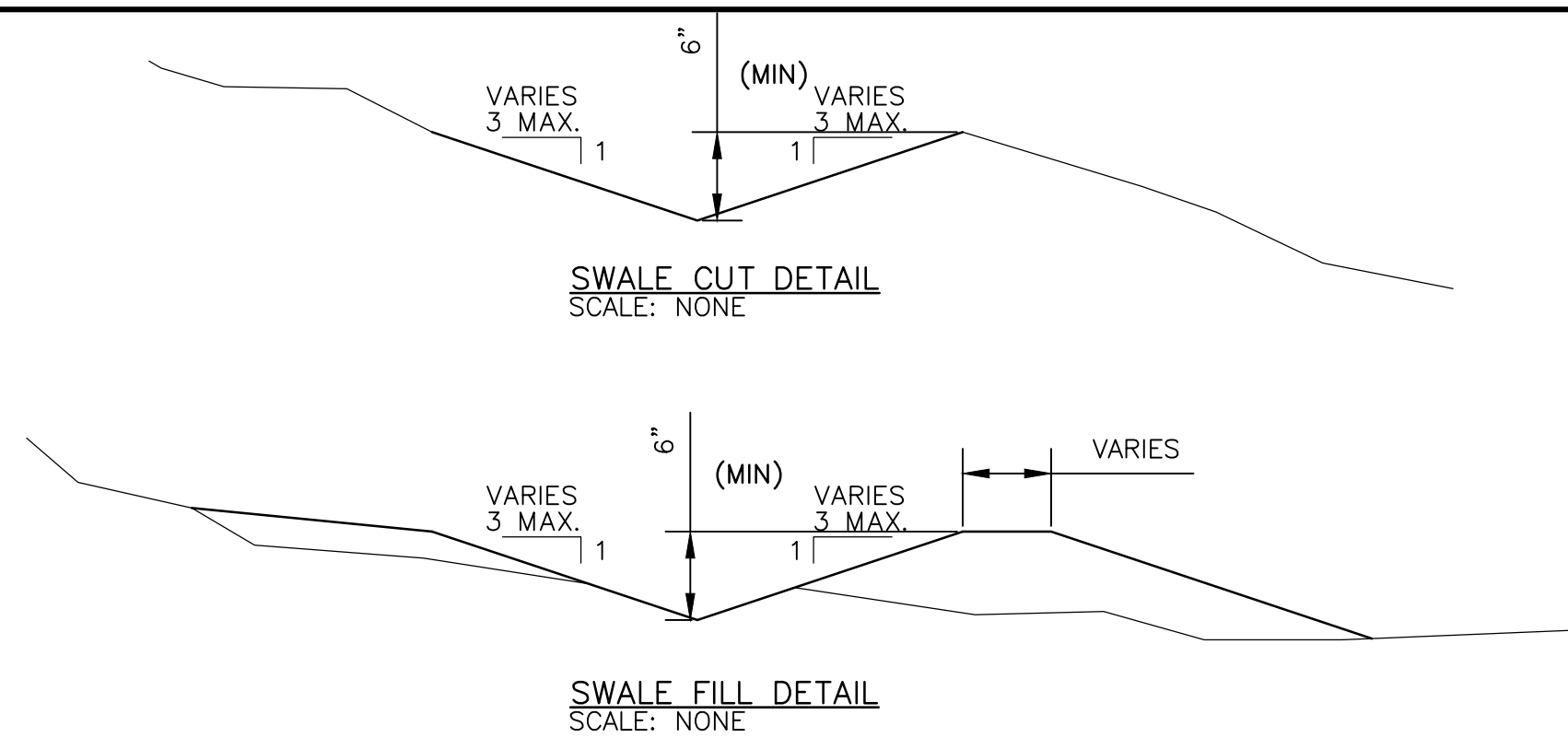


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BEVERLY HILLS AVE NE
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C-101



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