

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

May 10, 2017

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM, 87108

**RE: 5730 McMahon Blvd NW –McMahon Market Place New Shell Building
Grading Plan
Stamp Date: No Stamp Date
Hydrology File: A11D011E**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 5/8/2017, the Grading Plan **is not** approved for Building and SO-19 Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. On Sheet CG-1 & CG-2. Please provide an engineer's stamp with signature & date.

New Mexico 87103

2. On Sheet CG-1. Please make the existing spot elevations readable. Checking the transition between proposed pavement and existing pavement is hard to do when the existing spot elevations are that small.

www.cabq.gov

3. On Sheet CG-1. Please remove the future development along with any note letters and numbers. It is confusing in knowing what is being constructed, what is existing, and what is future development. Please clarify.

4. On Sheet CG-1. There is a proposed curb along a proposed drive or future drive on the east side of the property. It is hard to tell. If this is drive to be built with this submittal. If it is then a temporary curbing will need to be provided for where it has a future curbing. Please clarify.

5. On Sheet CG-1. There is a proposed curb along the exiting drive along the south property. Since it is noted that the existing asphalt drive is to remain, then is the south existing curb remaining or is there new curbing being installed. Please clarify.

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6. On Sheet CG-1. There is an existing drive in the northern portion of the property. Is this to remain? The northern curb is to stay. If it is new then please show what the limits the existing drive is to be remove and what is to remain. If existing drive to remain, then there are proposed contours that should be tied into the existing drive contours instead. Please clarify.
7. On Sheet CG-1. There are two curb cuts for the first flush basin along the east drive. Are both curb cuts needed? It appears that the drainage from this drive enters the basin, was this basin sized to handle this flow? Please clarify.
8. On Sheet CG-1. There are easements shown. Please label the easements.
9. On Sheet CG-2. Under the Drainage Plan Concept, The McMahon Marketplace DMP is called out. This plan used 5% Type B, 10% Type C, and 85% Type D. This plan also calls for the commercial tracts are permitted free discharge as long as the future development detains the 8.4 cfs for the entire 12.13 AC McMahon Marketplace in either a pond or change the amount of landscaping (Type B) and impervious (Type D) amounts. The Unser/McMahon Area DMP, 2001 by Bohann-Huston calls for 90% Type D and 10% Type B. Please update this section. **This site will be able to free discharge under the McMahon Marketplace DMP,** however Lots 5-A, 6-A, 8-A, 9-A, 9-B, 9-C, and 9-D will have to follow the McMahon Marketplace DMP and detain the 8.4 cfs in a pond.
10. On Sheet CG-2. Please provide the weir calculations for the 24"; curb cut.
11. On Sheet CG-2. Please provide the weir calculations for the sidewalk culvert.

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

Sincerely,

Renee C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

GENERAL GRADING AND STORM DRAIN NOTES

- A. PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- B. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR INSTRUCTIONS.
- C. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NPDES PERMIT, AND AN EROSION AND SEDIMENT CONTROL (ESC) PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NPDES PERMIT, AND ESC PLAN BY OTHERS.) A CURRENT CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING, BUILDING, OR WORK ORDER PERMIT. CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE WHO WILL PREPARE SWPPP AND INSPECT REQUIRED ELEMENTS.
- D. IF THE SITE IS SMALL ENOUGH NOT TO REQUIRE A SWPPP/NPDES PERMIT (LESS THAN ONE ACRE), THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR USING EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PUBLIC RIGHT-OF-WAY.
- E. MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.
- F. WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.
- G. PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES, WHICHEVER IS MORE STRINGENT.
- H. ALL EROSION PROTECTION TO BE INSTALLED AS 3" AVG. DIA. ANGULAR FACED ROCK (F.F. ROCK) PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).
- I. SIDESLOPES STEEPER THAN 3:1 BUT LESS THAN 2:1 MUST HAVE PERMANENT EROSION PROTECTION INSTALLED, TYPICAL. NO SLOPE SHALL BE STEEPER THAN 2:1.
- J. FIRST FLUSH BASIN DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN TO BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES.
- K. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- L. FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE (FOR CERTIFICATE OF OCCUPANCY) CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES:
- M. AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;
- N. TOP AND BOTTOM ELEVATIONS AS REQUIRED TO DEFINE THE PERIMETER OF PONDS (TO BE USED BY ENGINEER TO CALCULATE AS-BUILT VOLUME PROVIDED);
- O. ALL CONSTRUCTION, INCLUDING DRAIN INLETS, PIPES AND PONDS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.
- P. GRADING OF FIRST FLUSH BASINS WILL BE INSPECTED AS PART OF ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. DURING LANDSCAPING, FIRST FLUSH BASINS WILL BE SMOOTHLY INTEGRATED INTO LANDSCAPING WHILE MAINTAINING REQUIRED TOP AND BOTTOM ELEVATION, VOLUME AND INLET / OVERFLOW ELEVATIONS.
- Q. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF ALL WORK RELATED TO PROPOSED STORM DRAINS SHOWN ON THIS PLAN INCLUDING: TRENCHING, BACKFILL, SUPPORTS, INLETS, WATER QUALITY FEATURES, EROSION CONTROL FEATURES, TESTING AND CLEANING. ANY WORK NOT ACCEPTED BY THE ARCHITECT OR ENGINEER DUE TO IMPROPER WORKMANSHIP OR LACK OF PROPER COORDINATION SHALL BE REMOVED AND CORRECTLY INSTALLED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED.
- R. MINIMUM COVER FOR STORM DRAIN PIPES SHALL BE 12", UNLESS OTHERWISE NOTED.
- S. STORM DRAINS SHALL BE INSTALLED PRIOR TO SURFACE IMPROVEMENTS SUCH AS PAVEMENT, SIDEWALKS, AND LANDSCAPING.
- T. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTIONS TO ROOF DOWNSPOUTS AND ALL NECESSARY FITTINGS. FITTING COSTS SHALL BE INCIDENTAL.
- U. TRENCHING, BORING, AND JACKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH COA SPEC. SECT. 700. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY PER ASTM D-1557.
- V. ALL INLET AND AREA DRAIN RINGS & GRATES, MANHOLE RINGS & COVERS, AND OTHER SURFACE FEATURES SHALL BE ADJUSTED TO FINISHED GRADE, UNLESS OTHERWISE NOTED ON THE PLANS.
- W. ALL STORM DRAIN CROSSINGS OF WATER AND SEWER LINES SHALL HAVE 18" MIN CLEARANCE. IF 18" CLEARANCE IS NOT POSSIBLE, CONTACT THE ENGINEER AND / OR ARCHITECT IMMEDIATELY.
- X. HDPE PIPE SHALL BE ADS N-12 (WATERTIGHT) OR ENGINEER APPROVED EQUIVALENT. HDPE PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- Y. PVC PIPES SHALL BE PVC SDR-35, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- Z. STORM DRAINS SHALL BE INSTALLED AT INVERTS AND SLOPES SPECIFIED ON THE PLANS. THE PIPE SHALL DRAIN AT A CONSTANT SLOPE BETWEEN FITTINGS AND MANHOLES. THE PIPE SHALL DRAIN TOWARD THE OUTLET AT ALL LOCATIONS.



S.O.19 : NOTICE TO CONTRACTORS

- 1 AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
- 2 ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #8.
- 3 TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (CALL '811') FOR LOCATION OF EXISTING UTILITIES.
- 4 PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5 BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC / STREET USE.
- 6 MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- 7 WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
- 8 THE WORK IN THE CITY ROW MUST BE INSPECTED AND ACCEPTED. THE CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE INSPECTIONS.

APPROVAL	NAME	DATE
INSPECTOR		

LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR (1' INCREMENT)
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FINISH FLOOR ELEVATION
- GRADE BREAK
- PROPOSED FIRST FLUSH RETENTION PONDING AREA
- PERCOLATION TRENCH
- LIMITS OF EROSION CONTROL

CONSTRUCTION STAKING

UPON WRITTEN REQUEST COORDINATED THROUGH THE PROJECT ARCHITECT, THE ELECTRONIC FILE OF THE GRADING AND DRAINAGE WILL BE PROVIDED TO THE CONTRACTOR FOR VERTICAL CONTROL. DO NOT USE THIS PLAN FOR PROJECT STAKING.

SITE CONSTRUCTION LAYOUT / STAKING SHALL BE COORDINATED WITH THE ARCHITECT USING THE ARCHITECT PROVIDED SITE PLAN.

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com
2191 CG-101.dwg May 05,2017

VICINITY MAP



KEYED NOTES

- UNDERLINED TEXT REFERENCES DETAILS PROVIDED ON CG-2
1. CONSTRUCT PROPOSED PAVING / WALKS / CROSSWALKS / CURB AND GUTTER TO ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, EXTENTS, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
2. EXISTING PAVING THIS AREA TO REMAIN.
3. CONSTRUCT HC PARKING AREA TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
4. CONSTRUCT ADA COMPLIANT HANDICAP ACCESS RAMP AT ELEVATIONS SHOWN (1" PER FOOT - LENGTH VARIES). MAX. 2% CROSS-SLOPE. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
5. PROVIDE 24" WIDE CURB OPENING AT FLOWLINE SHOWN TO PASS DISCHARGE INTO AND OUT OF 'FIRST FLUSH' RETENTION PONDING AREAS. SEE DETAIL SHEET CG-2.
6. INSTALL ROCK EROSION PROTECTION AT CURB OPENING INLET / OUTLET, EDGE PROTECTION AND WITHIN FLOWLINES CARRYING CONCENTRATED FLOW (3'WIDE). LIMITS HATCHED PER LEGEND. SEE DETAIL SHEET CG-2.
7. DOT HATCHED AREA REPRESENTS EXTENTS OF 'FIRST FLUSH' RETENTION PONDING. CONSTRUCT TO ELEVATIONS AND SIDE SLOPES SHOWN (2:1 EAST, 3:1 NORTH).
8. NOTE: TO ENSURE READABILITY, NOT ALL PAVEMENT SPOT ELEVATIONS SHOW ADJACENT TOP OF CURB / TOP OF WALK. TEXT SHOWN WITHIN FLOWLINE REPRESENTS FLOWLINE ELEVATION. ADD 0.5' TYPICAL FOR TOP OF ADJACENT CURB OR WALK ELEVATIONS.
9. CONSTRUCT NEW CONCRETE DUMPSTER PAD AND ENCLOSURE AT ELEVATIONS SHOWN. INSTALL FLOOR DRAIN AT RIM ELEVATION SHOWN & EXTEND TO SANITARY SEWER GREASE TRAP (SEE UTILITY PLAN).
10. CONSTRUCT 18" WIDE (BOTTOM WIDTH) COVERED SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. SEE DETAIL SHEET CG-2 FOR ADDITIONAL CONSTRUCTION DETAILS. SEE S.O.19 FORM THIS SHEET FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION IN THE RIGHT-OF-WAY.
11. CONSTRUCT RETAINING WALL ALONG SEATING AREA TO ACHIEVE GRADE TRANSITIONS SHOWN. GRADES PROVIDED EACH SIDE REFLECT FINISH GRADES. SEE ARCHITECTURAL FOR INFORMATION RE: STRUCTURAL DESIGN, ADDITIONAL WALL HEIGHT, CONSTRUCTION DETAILS, WEEPHOLES, ETC.
12. INSTALL PRIVATE STORM DRAIN SYSTEM TO DELIVER STORMWATER TO NORTH POND. SEE CG-2.
13. ROOF DISCHARGE TO BE PIPED DIRECTLY TO STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION.
14. CONSTRUCT A PERCOLATION TRENCH WITHIN FIRST FLUSH BASINS. SEE CG-2 FOR DETAIL.

ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF THERE ARE DISCREPANCIES, PLEASE NOTIFY THE ARCHITECT. DRAWING ARE NOT TO BE SCALED. USE DIMENSIONS FOR ACCURACY.

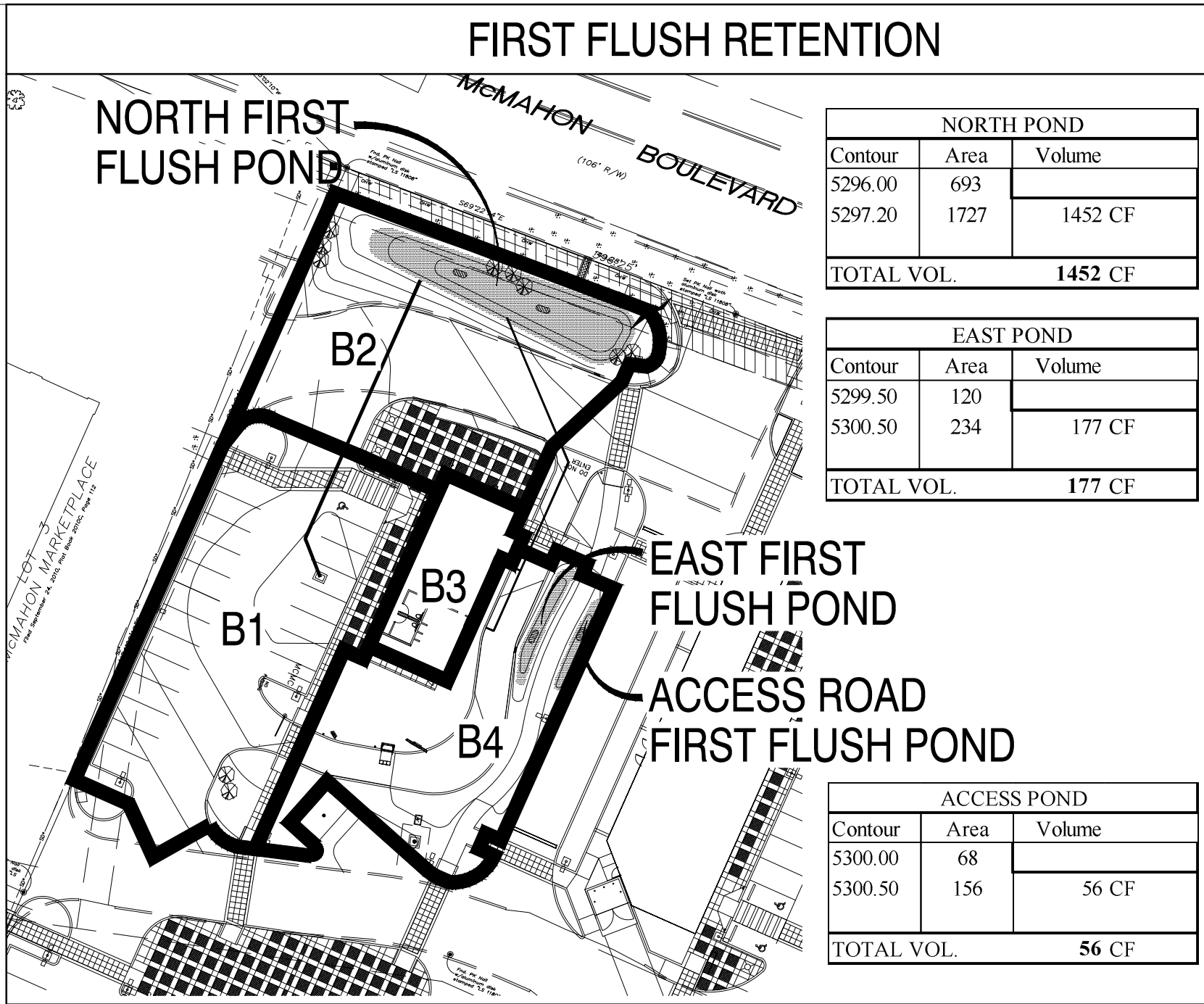
McMAHON MARKET PLACE
NEW SHELL BUILDING
5730 McMAHON BLVD NW
ALBUQUERQUE, NM 87114
GRADING & DRAINAGE PLAN

DATE: 8 MAY, 2017
DRAWN BY: BJB
CHECKED BY: FCA
VERIFIED BY:

REVISIONS

SHEET NO:

CG-1



ON-SITE DRAINAGE BASINS

THE FULLY DEVELOPED PROPERTY WILL DISCHARGE 3.8 CFS DURING THE 100-YEAR 6-HOUR STORM.

TO NORTH FIRST FLUSH POND: CONSISTING OF BASIN 1 (SITE FLOW TO STORM DRAIN INLET) BASIN 2 (SITE FLOW TO NORTH POND) AND BASIN 3 (ROOF DISCHARGE TO NORTH POND) APPROXIMATELY 2.1 CFS WILL DISCHARGE TO THE NORTH FIRST FLUSH RETENTION POND. AFTER THE REQUIRED FIRST FLUSH VOLUME (470 CF) IS RETAINED, THE BASIN WILL FREE DISCHARGE TO MCMAHON BLVD. VIA THE PROPOSED COVERED SIDEWALK CULVERT.

TO EAST FIRST FLUSH POND: APPROXIMATELY 0.7 CFS WILL DISCHARGE FROM THE SITE TO THE EAST FIRST FLUSH RETENTION POND SITUATED WITHIN THE LANDSCAPING. AFTER THE REQUIRED FIRST FLUSH VOLUME (173 CF) IS RETAINED, THE BASIN WILL FREE DISCHARGE TO THE ACCESS ROAD TO THE EAST.

TO ACCESS ROAD FIRST FLUSH POND: THE LANDSCAPING ADJACENT TO THE ACCESS ROAD TO THE EAST WILL SERVE FOR FIRST FLUSH RETENTION. FLOW WILL BE ACCEPTED INTO THE PONDING AREA VIA CURB CUTS.

B1		DESCRIPTION	
WS =	10852	SF	=
Calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E =		A = 0%	
Sub-basin Volume of Runoff (see formula above)		B = 0%	
V ₅₀₀ =		C = 0%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 100%	
Q _p =		FIRST FLUSH VOL.	
		307 CF	

B2		DESCRIPTION	
WS =	9833	SF	=
Calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E =		A = 10%	
Sub-basin Volume of Runoff (see formula above)		B = 20%	
V ₅₀₀ =		C = 30%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 40%	
Q _p =		FIRST FLUSH VOL.	
		111 CF	

B3		DESCRIPTION	
WS =	2117	SF	=
Calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E =		A = 0%	
Sub-basin Volume of Runoff (see formula above)		B = 0%	
V ₅₀₀ =		C = 15%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 85%	
Q _p =		FIRST FLUSH VOL.	
		51 CF	

B4		DESCRIPTION	
WS =	7163	SF	=
Calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E =		A = 0%	
Sub-basin Volume of Runoff (see formula above)		B = 0%	
V ₅₀₀ =		C = 15%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 85%	
Q _p =		FIRST FLUSH VOL.	
		173 CF	

100-YEAR 6-HOUR STORM CALCULATIONS

CALCULATIONS: STARBUCKS : May 4, 2017

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 72895 SF = 1.7

100-year, 6-hour

DEVELOPED FLOWS:

EXCESS PRECIP:

Precip. Zone 1

Treatment SF	%
0	0%
3645	5%
7290	10%
61961	85%
Total Area	72895 100%

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = $E_A A_A + E_B A_B + E_C A_C + E_D A_D$

Developed E = 1.81 in.

On-Site Volume of Runoff: V₃₆₀ = $E^* A / 12$

Developed V₃₆₀ = 10977 CF

On-Site Peak Discharge Rate: $Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D / 43.560$

For Precipitation Zone 1

Q _{pA}	Q _{pB}	Q _{pC}	Q _{pD}
1.29	2.03	2.87	4.37
Developed Q _p = 6.9 CFS			

PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE WEST BY DEVELOPED COMMERCIAL, TO THE EAST AND SOUTH BY UNDEVELOPED COMMERCIAL AND TO THE NORTH BY MCMAHON BOULEVARD.

SITE AREA: 0.9181 ACRES

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A RESTAURANT BUILDING WITH DRIVE-THRU LANE, PAVED PARKING, PEDESTRIAN WALKS, DRAINAGE IMPROVEMENTS, AND LANDSCAPING.

LEGAL: LOT 4 MCMAHON MARKETPLACE, CITY OF ALBUQUERQUE, NEW MEXICO.

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY MONUMENT "9-A11", ELEVATION = 5301.647 (NAVD 1988)

OFF-SITE: NO OFF-SITE DRAINAGE WILL IMPACT THIS PROPERTY.

FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN. ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS MAP NO. 35001C0104H, MAP REVISED AUGUST 16, 2012.

DRAINAGE PLAN CONCEPT: THIS SITE IS ANALYZED AS PART OF THE MCMAHON MARKETPLACE DRAINAGE MANAGEMENT PLAN (DMP) DATED 05/07/10 PREPARED BY BOHANNAN-HUSTON INC. THE SITE IS CURRENTLY UNDEVELOPED. PER THE DMP, THE COMMERCIAL TRACTS IN THIS AREA ARE PERMITTED FREE DISCHARGE USING 90% TYPE 'D' AND 10% TYPE 'B'.

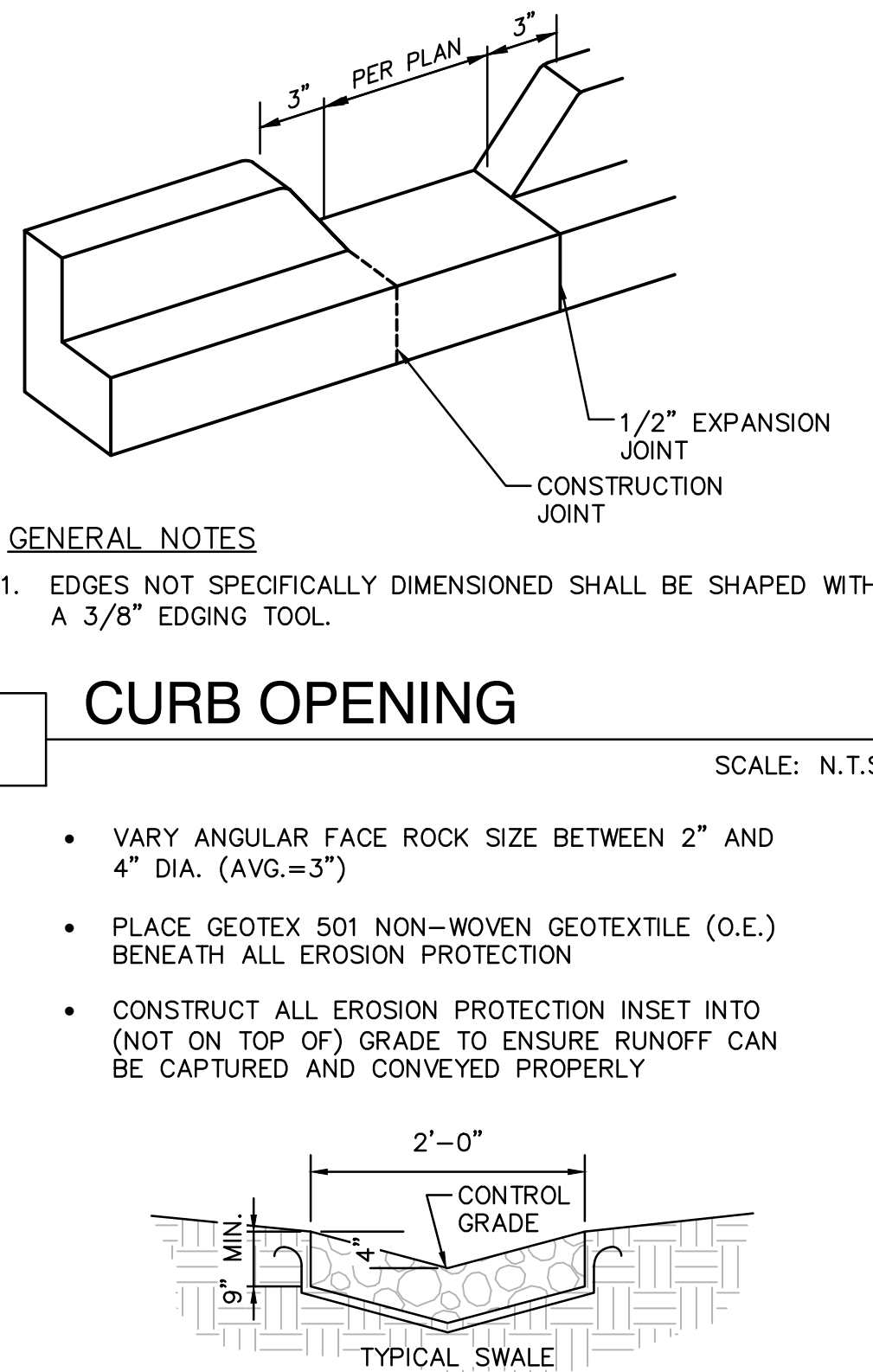
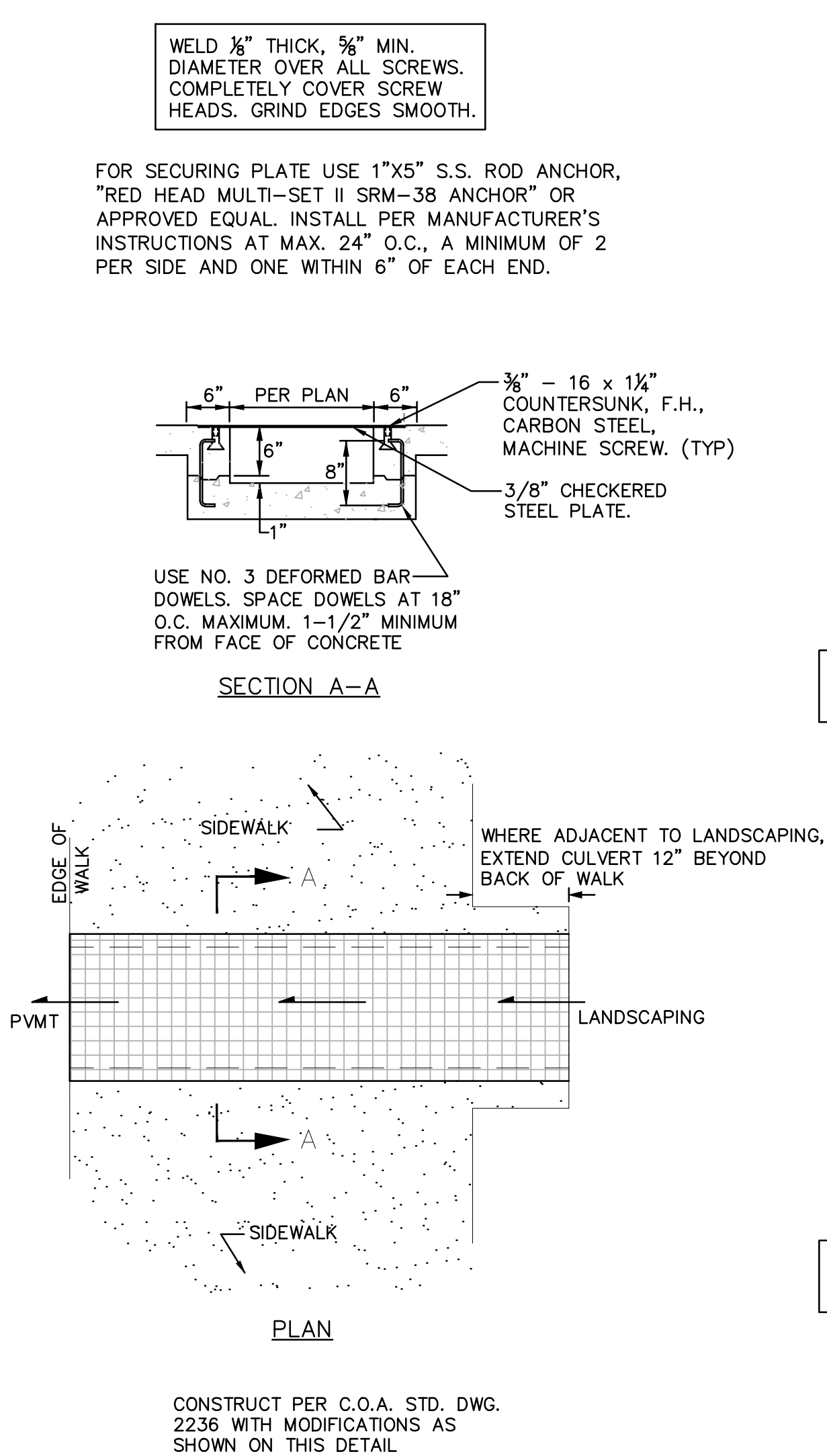
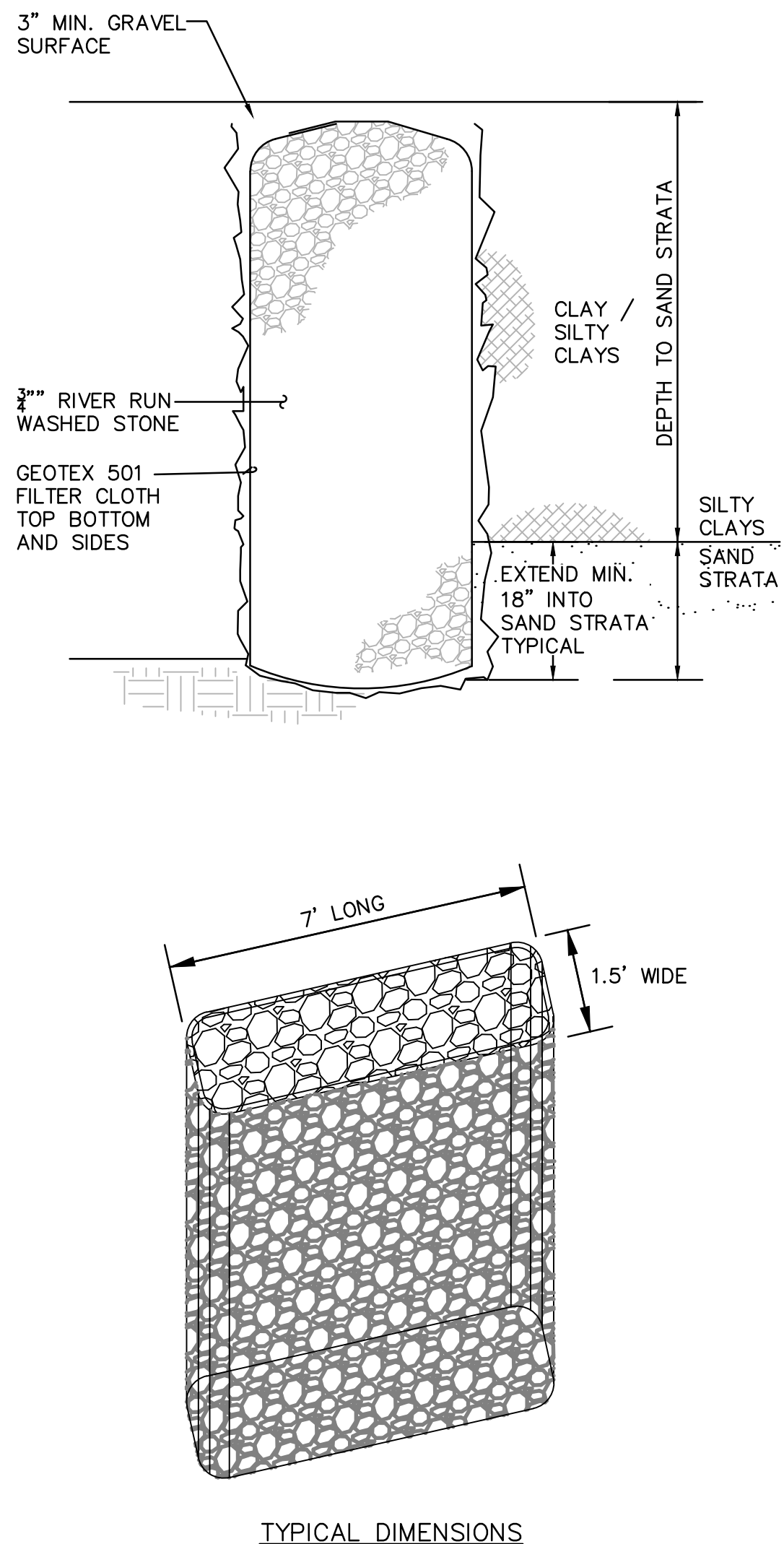
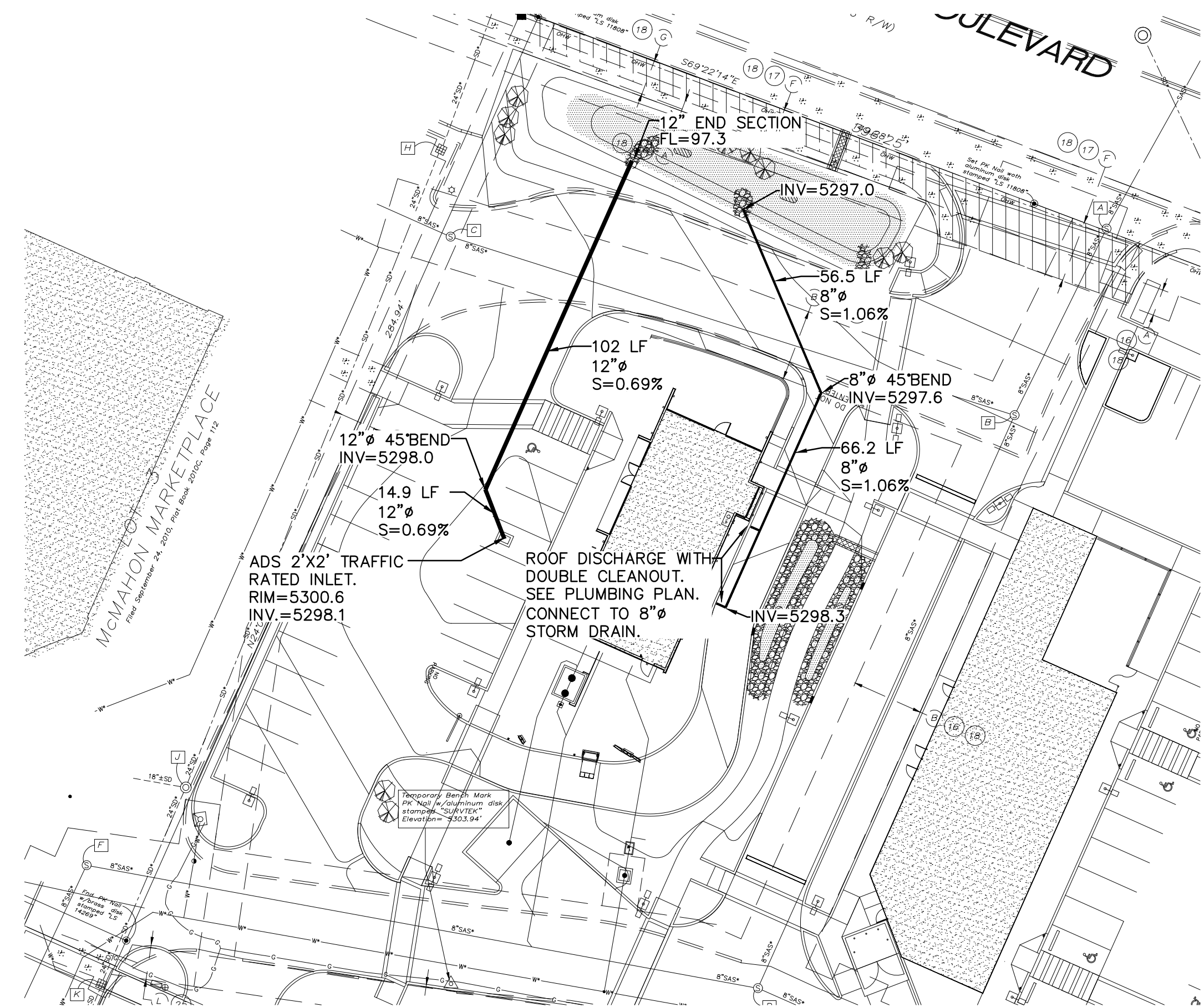
THE PROPERTY WILL FREE DISCHARGE AFTER FIRST FLUSH RETENTION IS ACHIEVED.

STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM.

FIRST FLUSH RETENTION PONDS WILL BE CONSTRUCTED WITHIN THE LANDSCAPE AREAS AS DESIGNATED BY DOT HATCH. STORM WATER FROM THE IMPERVIOUS AREAS SHALL BE DIRECTED TO THESE PONDS. STORMWATER WILL THEN FREE DISCHARGE TO MCMAHON BLVD. TO FOLLOW THE HISTORIC FLOWPATHS.

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE, 87111
TELEPHONE: (505) 268-8828

SURVEYOR: RUSS P. HUGG, NMPS NO. 9750
SURV-TEK, INC.
9384 VALLEY VIEW DR. NW, 87114
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2191 CG-101.dwg May 05, 2017

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MCMAHON MARKET PLACE
NEW SHELL BUILDING
5730 MCMAHON BLVD NW
ALBUQUERQUE, NM 87114

GRADING & DRAINAGE DETAILS

MARTIN FM GRUMMER
ARCHITECT
331 WILSON PLAZA NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-2507

DATE: 8 MAY, 2017
DRAWN BY: BJB
CHECKED BY: FCA
VERIFIED BY:

REVISIONS

SHEET NO:
CG-2