CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

February 2, 2017

Cesar Segovia
Rogue Architects
513 Main St #300
Fort Worth, TX 76102

RE: **McDonalds – Coors and Hanover**
1501 Coors Blvd NW
Grading Plan
(Non-stamped) Plan Date: 1/16/17 (File: J11D037)

Dear Mr. Segovia:

Based upon the information provided in your submittal received 1/30/2017, the Grading Plan is not approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Conversion of DI#1 from a Type Single C to a Type Single D requires one of the following as there is no throated inlet less than 150' upstream of this catchment:
    a. A throated drop inlet (Type A or C) may be added within 150' upstream of DI#1.
    b. DI#1 may be replaced with a Type Double-D inlet. This seems to be the more feasible option.
2. For connections to City Facilities, storm drain material must be RCP Class 3 or 4, PVC, Ductile Iron Pipe, or HPPP (High Performance Polypropylene Pipe). This applies to STRM-4 tying into MH#4. Additionally it may be more feasible to tie directly into the back of DI#1.
3. Will adjustments be needed to raise or lower MH#4 on Hanover? This is currently on the sidewalk and is proposed to be in the drivepad.
4. Ensure the fence around Bio-retention Areas 3 and 4 is at least 42" in height.
5. Waterblocks, at least 8" high from top of pavement on the drivepad to bottom of gutter along the road, need to be incorporated at the Coors entrance.

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE

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6. Please coordinate with NMDOT for work within their ROW along Coors Blvd. Provide correspondence showing coordination.

7. This work will require an Erosion and Sediment Control Plan submitted to the storm water quality engineer (Curtis Cherne, PE, ccherne@cabq.gov) before Building Permit Approval.

8. The Grading Plan will need to be sealed by the Engineer prior to approval by Hydrology.

Modifications to existing inlet DI#1 and MH#4 will require an SO-19 Permit. 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

New Mexico 87103

www.cabq.gov

Orig: Drainage file

****THIS PERMIT IS UNDER FASTRAX REVIEW****

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2016)

FASTRAX REVIEW PERMIT

Project Title: McDonalds - Coors & Hanover Building Permit #: BP-2016-31138 Hydrology File #: _____

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

Legal Description: _____

City Address: 1501 Coors Blvd NW, Albuquerque NM

Applicant: Rogue Architects Contact: Cesar Segovia

Address: 513 Main St, Suite 300, Fort Worth TX 76102

Phone#: 817-529-6874 Fax#: _____ E-mail: cesar@roguearchitects.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

____ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN

X GRADING PLAN

____ DRAINAGE MASTER PLAN

____ DRAINAGE REPORT

____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)

____ TRAFFIC IMPACT STUDY (TIS)

____ OTHER (SPECIFY) _____

____ PRE-DESIGN MEETING?

IS THIS A RESUBMITTAL?: ____ Yes X No

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X 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

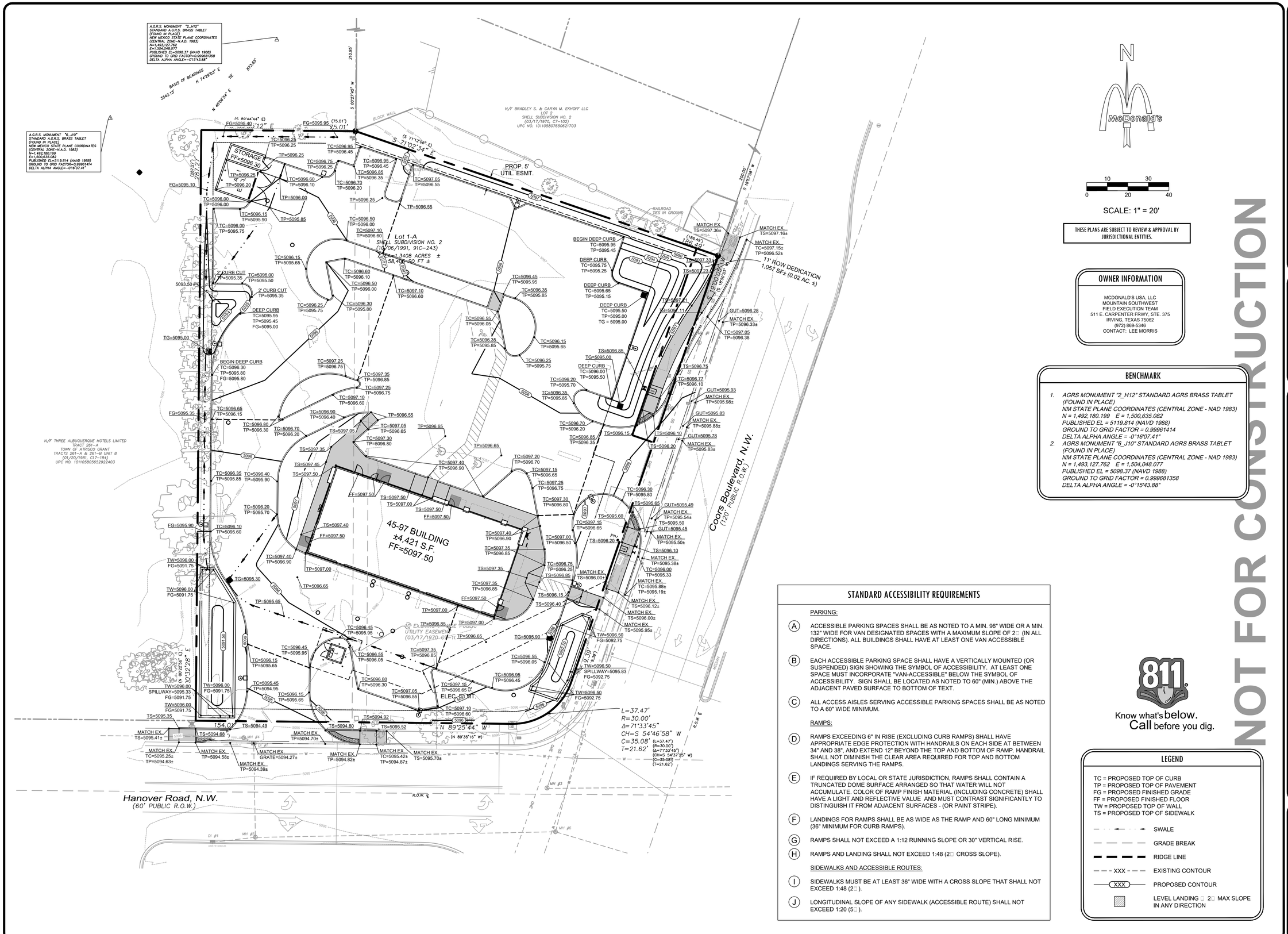
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 01/25/2017 By: Cesar Segovia Cesar Segovia

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____



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SCALE: 1" = 20'

THESE PLANS ARE SUBJECT TO REVIEW & APPROVAL BY JURISDICTIONAL ENTITIES.

OWNER INFORMATION

MCDONALD'S USA, LLC
MOUNTAIN SOUTHWEST
FIELD EXECUTION TEAM
511 E. CARPENTER FRWY, STE. 375
IRVING, TEXAS 75062
(972) 869-5346
CONTACT: LEE MORRIS

BENCHMARK

1. AGRS MONUMENT "2_H12" STANDARD AGRS BRASS TABLET (FOUND IN PLACE)
   NM STATE PLANE COORDINATES (CENTRAL ZONE - NAD 1983)
   N = 1,492,180.199 E = 1,500,635.082
   PUBLISHED EL = 5119.814 (NAVD 1988)
   GROUND TO GRID FACTOR = 0.99961414
   DELTA ALPHA ANGLE = -0°16'07.41"
2. AGRS MONUMENT "6_J10" STANDARD AGRS BRASS TABLET (FOUND IN PLACE)
   NM STATE PLANE COORDINATES (CENTRAL ZONE - NAD 1983)
   N = 1,493,127.762 E = 1,504,048.077
   PUBLISHED EL = 5098.37 (NAVD 1988)
   GROUND TO GRID FACTOR = 0.999681358
   DELTA ALPHA ANGLE = -0°15'43.88"

STANDARD ACCESSIBILITY REQUIREMENTS

PARKING:

(A) ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A MIN. 96" WIDE OR A MIN. 132" WIDE FOR VAN DESIGNATED SPACES WITH A MAXIMUM SLOPE OF 2□ (IN ALL DIRECTIONS). ALL BUILDINGS SHALL HAVE AT LEAST ONE VAN ACCESSIBLE SPACE.

(B) EACH ACCESSIBLE PARKING SPACE SHALL HAVE A VERTICALLY MOUNTED (OR SUSPENDED) SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. AT LEAST ONE SPACE MUST INCORPORATE "VAN-ACCESSIBLE" BELOW THE SYMBOL OF ACCESSIBILITY. SIGN SHALL BE LOCATED AS NOTED TO 60" (MIN.) ABOVE THE ADJACENT PAVED SURFACE TO BOTTOM OF TEXT.

(C) ALL ACCESS AISLES SERVING ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A 60" WIDE MINIMUM.

RAMPS:

(D) RAMPS EXCEEDING 6" IN RISE (EXCLUDING CURB RAMPS) SHALL HAVE APPROPRIATE EDGE PROTECTION WITH HANDRAILS ON EACH SIDE AT BETWEEN 34" AND 38", AND EXTEND 12" BEYOND THE TOP AND BOTTOM OF RAMP. HANDRAIL SHALL NOT DIMINISH THE CLEAR AREA REQUIRED FOR TOP AND BOTTOM LANDINGS SERVING THE RAMPS.

(E) IF REQUIRED BY LOCAL OR STATE JURISDICTION, RAMPS SHALL CONTAIN A TRUNCATED DOME SURFACE ARRANGED SO THAT WATER WILL NOT ACCUMULATE. COLOR OF RAMP FINISH MATERIAL (INCLUDING CONCRETE) SHALL HAVE A LIGHT AND REFLECTIVE VALUE AND MUST CONTRAST SIGNIFICANTLY TO DISTINGUISH IT FROM ADJACENT SURFACES - (OR PAINT STRIPE).

(F) LANDINGS FOR RAMPS SHALL BE AS WIDE AS THE RAMP AND 60" LONG MINIMUM (36" MINIMUM FOR CURB RAMPS).

(G) RAMPS SHALL NOT EXCEED A 1:12 RUNNING SLOPE OR 30" VERTICAL RISE.

(H) RAMPS AND LANDING SHALL NOT EXCEED 1:48 (2□ CROSS SLOPE).

SIDEWALKS AND ACCESSIBLE ROUTES:

(I) SIDEWALKS MUST BE AT LEAST 36" WIDE WITH A CROSS SLOPE THAT SHALL NOT EXCEED 1:48 (2□).

(J) LONGITUDINAL SLOPE OF ANY SIDEWALK (ACCESSIBLE ROUTE) SHALL NOT EXCEED 1:20 (5□).

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

LEGEND

TC = PROPOSED TOP OF CURB
TP = PROPOSED TOP OF PAVEMENT
FG = PROPOSED FINISHED GRADE
FF = PROPOSED FINISHED FLOOR
TW = PROPOSED TOP OF WALL
TS = PROPOSED TOP OF SIDEWALK

SWALE
GRADE BREAK
RIDGE LINE
XXX EXISTING CONTOUR
XXX PROPOSED CONTOUR
LEVEL LANDING □ 2□ MAX SLOPE IN ANY DIRECTION

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY
----	01/16/2017	ISSUE FOR PERMIT	HJM
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ADAMS JOB NO.: 2012.299

Adams
8951 Cypress Waters Blvd, Suite 150 ■ Dallas, Texas 75019 ■ (817) 328-3200

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, AGENCY APPROVAL, AND COMMENT UNDER THE AUTHORITY OF G. ROBERT ADAMS, P.E. REGISTRATION No. 15142, ON 01/19/17
THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES

MCDONALD'S L/C: 030-0014

OFFICE: MTN. SOUTHWEST FIELD EXECUTION TEAM
ADDRESS: KROC DRIVE - OAK BROOK, ILLINOIS 60521

McDonald's USA, LLC

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1501 COORS BLVD NW
ALBUQUERQUE, NM

PLAN APPROVALS

SIGNATURE (2 REQUIRED)	DATE
REGIONAL MGR.	
CONST. MGR.	
OPERATIONS DEPT.	
REAL ESTATE DEPT.	

CO-SIGN SIGNATURES

CONTRACTOR	
OWNER	

	DATE	BY
DESIGNED	JAN 2017	HJM
DRAWN	JAN 2017	HJM
CHECKED	01/16/17	DWL
AS-BUILT		

GRADING PLAN

C7.0

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FULL PATH: U:\Projects\2012\2012.299 McDonalds - Albuquerque, NM (Hanover)\Drawings\03-Production-MCDC\C7.0 GRADING PLAN
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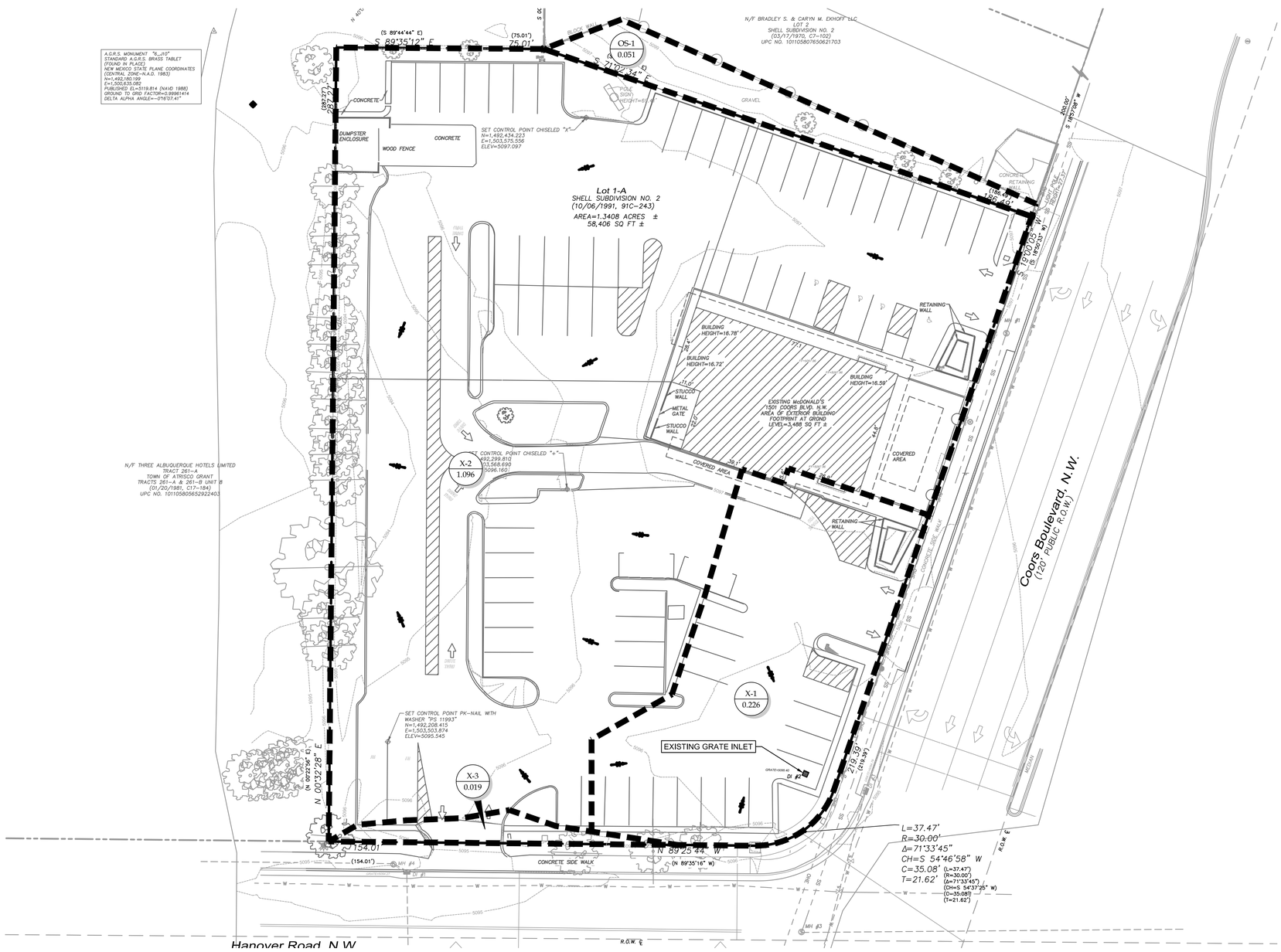

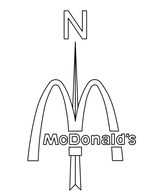

0 10 20 30 40

SCALE: 1" = 20'

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CONTACT: LEE MORRIS

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NOT FOR CONSTRUCTION

PRE-DEVELOPMENT 100-YEAR, 6-HOUR RUNOFF CALCULATIONS

Drainage Area Number	Area	Land Treatment Condition				Excess Precipitation	Volume	Peak Discharge	Remarks
	(ac)	A	B	C	D	(in)	(ac/ft)	(cfs)	-
X-1	0.226	0.000	0.000	0.024	0.202	1.87	0.04	0.95	SHEET FLOW TO ON-SITE GRATE INLET
X-2	1.096	0.000	0.000	0.146	0.950	1.84	0.17	4.57	OFF-SITE TO THE WEST
X-3	0.019	0.000	0.000	0.007	0.012	1.61	0.00	0.07	OFF-SITE TO THE SOUTH
OS-1	0.051	0.000	0.000	0.051	0.000	0.99	0.00	0.15	SHEET FLOW FROM NORTH ONTO SITE
Undeveloped	1.392	1.392	0.000	0.000	0.000	0.44	0.05	1.80	SHEET FLOW FROM NORTH TO SOUTH AND WEST

Note: Calculations in accordance with the City of Albuquerque Development Process Manual. The site is in Precipitation Zone 1.

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

LEGEND

- DRAINAGE AREA LINE
- XXX — EXISTING CONTOUR
- X / XXX — DRAINAGE AREA NUMBER / DRAINAGE AREA (ACRES)
- EXISTING DRAINAGE DIRECTION

REV	DATE	DESCRIPTION	BY
----	01/16/2017	ISSUE FOR PERMIT	HJM
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PLAN APPROVALS	SIGNATURE (2 REQUIRED)	DATE
REGIONAL MGR.		
CONST. MGR.		
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REAL ESTATE DEPT.		
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CONTRACTOR		
OWNER		

OFFICE: MTN. SOUTHWEST FIELD EXECUTION TEAM — MCDONALD'S L/C: 030-0014
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1501 COORS BLVD NW
ALBUQUERQUE, NM

	DATE	BY
DESIGNED	JAN 2017	MSH
DRAWN	JAN 2017	MSH
CHECKED	JAN 2017	DWL
AS-BUILT		

PRE-DEVELOPED DRAINAGE PLAN

C8.0

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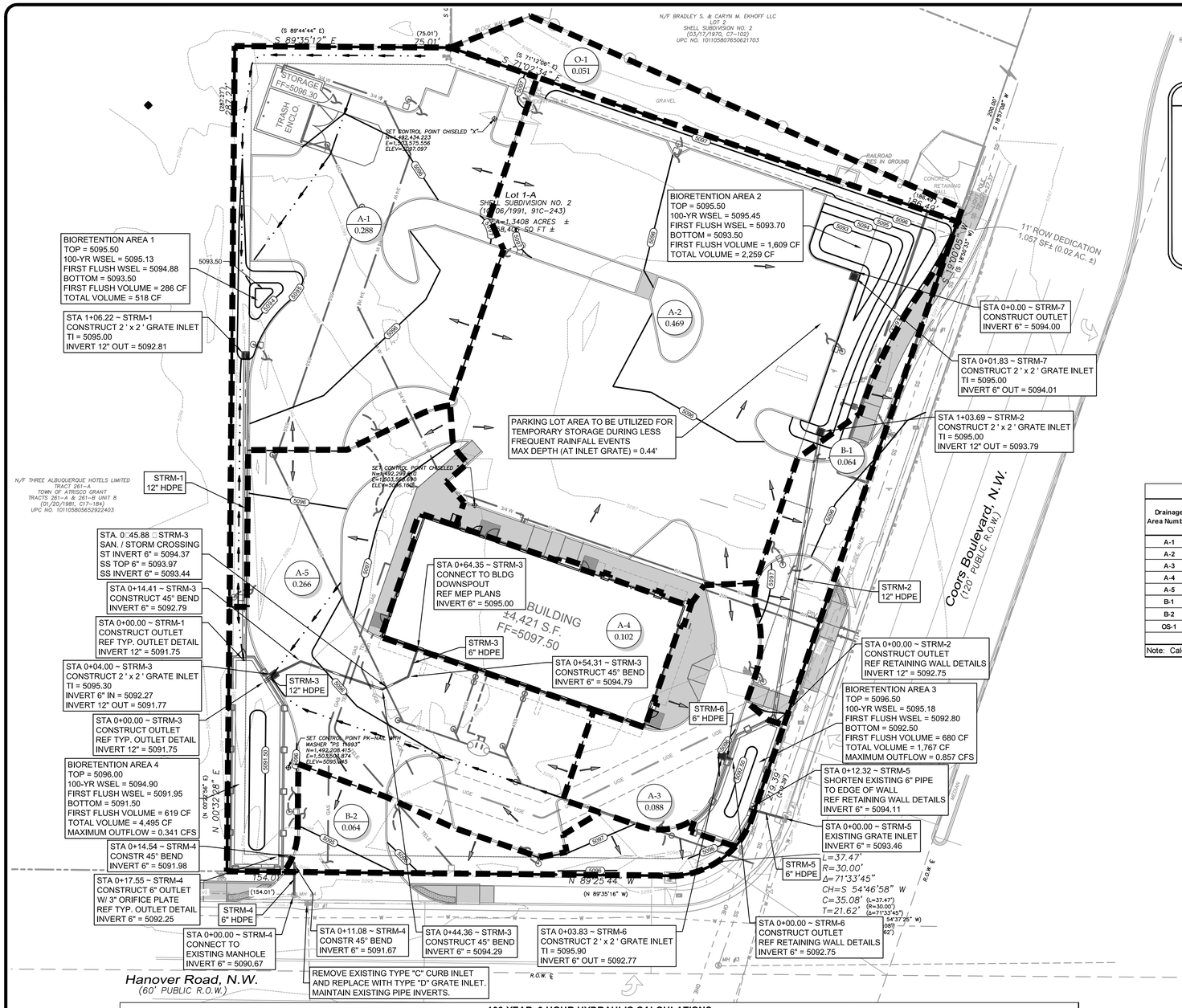

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LEGEND

- DRAINAGE AREA LINE
- XXX EXISTING CONTOUR
- XXX PROPOSED CONTOUR
- X / XXX DRAINAGE AREA NUMBER / DRAINAGE AREA (ACRES)
- PROPOSED DRAINAGE DIRECTION

N

SCALE: 1" = 20'

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IRVING, TEXAS 75062
(972) 869-5346
CONTACT: LEE MORRIS

POST-DEVELOPMENT 100-YEAR, 6-HOUR RUNOFF CALCULATIONS

Drainage Area Number	Area	Land Treatment Condition				Excess Precipitation	Volume	Peak Discharge	Remarks
	(ac)	A	B	C	D	(in)	(ac/ft)	(cfs)	-
A-1	0.288	0.000	0.000	0.092	0.196	1.66	0.04	1.12	SHEET FLOW TO BIO-RETENTION BASIN 1
A-2	0.469	0.000	0.000	0.140	0.329	1.68	0.07	1.84	SHEET FLOW TO BIO-RETENTION BASIN 2
A-3	0.088	0.000	0.000	0.016	0.072	1.79	0.01	0.36	SHEET FLOW TO BIO-RETENTION BASIN 3
A-4	0.102	0.000	0.000	0.000	0.102	1.97	0.02	0.45	ROOF FLOW TO BIO-RETENTION BASIN 4
A-5	0.266	0.000	0.000	0.071	0.195	1.71	0.04	1.06	SHEET FLOW TO BIO-RETENTION BASIN 4
B-1	0.064	0.000	0.000	0.026	0.038	1.58	0.01	0.24	SHEET FLOW OFF-SITE TO COORS BLVD.
B-2	0.064	0.000	0.000	0.040	0.024	1.36	0.01	0.22	SHEET FLOW OFF-SITE TO HANOVER RD.
OS-1	0.051	0.000	0.000	0.051	0.000	0.99	0.00	0.15	SHEET FLOW FROM NORTH ONTO SITE

Note: Calculations in accordance with the City of Albuquerque Development Process Manual. The site is in Precipitation Zone 1.

FIRST FLUSH VOLUME CALCULATIONS

Pond #	Drainage Areas	Impervious Area (Ac)	FF Required Volume (cf)	FF Provided Volume (cf)	Total Provided Volume (cf)
1	A-1	0.196	242	286	518
2	A-2, OS-1	0.329	406	1609	2259
3	A-3	0.072	89	680	1767
4	A-4, A-5	0.297	367	619	4495
Off-site Flow	B-1, B-2	0.062	77	n/a	n/a
Total	All	0.956	1180	3296	9039

DRAINAGE REPORT

Site Location – The site is located on approximately 1.34 acres at the northwest corner of Coors Blvd. and Hanover Rd. It is bordered to the north by an automobile dealership and to the West by currently vacant land held by "Three Albuquerque Hotels Limited". Proposed construction will include a McDonald's restaurant and associated paving, grading, landscaping, utility, and storm water management infrastructure.

Methodology – The proposed storm water management system was evaluated in accordance with Chapter 22 of the City of Albuquerque Development Process Manual. The site is located in Bernalillo County Precipitation Zone 1. The 100-year, 6-hour frequency rainfall event was used to calculate peak discharge rates and runoff volumes under undeveloped, existing, and proposed conditions.

Existing Conditions – Refer to Sheet C8.0 for the Pre-Developed Drainage Plan. Four drainage basins are identified for the site under existing conditions. Area OS-1 consists of 0.051 acres flowing onto the site from the North. Area X-1 contains 0.226 acres at the Southeast corner of the site, and drains through a grate inlet on-site into the Coors Blvd. ROW storm drain system. Area X-2 contains 1.096 acres, and drains to the Western side of the site where water is allowed to infiltrate through a landscape strip. Area X-3 contains 0.019 acres at the Southern edge of the site, and drains to the Hanover Rd. ROW. To accommodate new design standards, the original, undeveloped state of the on- and off-site 1.392 acre site has been analyzed as sheet flow from the North to the South and West, ultimately draining into Hanover Rd. ROW. Peak discharge rate and runoff volume calculations for existing and undeveloped conditions are provided on Sheet C8.0.

Proposed Conditions – Refer to Sheet C8.1 for the Post-Developed Drainage Plan. Nine drainage basins are identified for the site under proposed conditions. Area OS-1 (0.051 acres) flows onto the site from the North into area A-2 (0.469 acres) which both drain through an inlet grate into Bio-Retention Basin 2. Bio-Retention Basin 2 captures the first flush for these areas, then overflows to Bio-Retention Basin 3. Area A-1 (0.288 acres) drains into Bio-Retention Basin 1, from a combination of sheet and channel (swale) flow, which captures the first flush for the area, then overflows to Bio-Retention Basin 4. Area A-3 (0.088 acres) sheet flows to Bio-Retention Basin 3 through a grate inlet where the first flush for A-3 is captured. Roof Area A-4 (0.102) drains through a downspout along with Area A-5 (0.266 acres) through a grate inlet into Bio-Retention Basin 4 where the first flush is retained. The outflow pipes for Bio-Retention Basins 3 and 4 have been sized to limit flow to undeveloped conditions during a 100-year storm event (Undeveloped=1.80CFS, Proposed=1.66CFS). Total bio-retention (0.34", "first flush") is 3,296 cubic feet with an overall total storage of 9,039 cubic feet to accommodate limited flow rates out of Bio-Retention Basins 3 and 4.

Conclusions – The overall amount of impervious area at this site will be similar under the proposed conditions as the existing site; however, rather than a large portion of flow draining directly into the storm system, all areas meet the required bio-retention volume. Additionally, the proposed site will reduce the detention/infiltration burden on the adjacent site to the West. Under more frequent storm events, nearly all flow is retained and infiltrated on-site while even the 100-year storm flows off the site are kept below the undeveloped volumetric flow rate. As a result of the improvements, quality and quantity of flow should be improved when compared to the existing site.

100-YEAR, 6-HOUR HYDRAULIC CALCULATIONS

Line ID	Upstream Station	Downstream Station	Pipe Length	Pipe Slope	Drainage Area Designation	Time at Inlet	Time in Pipe	Cumulative Time	Peak Flow	Pipe Diameter	Friction Slope	Hydraulic Gradient Upstream	Hydraulic Gradient Downstream	Velocity In	Velocity Out	V1^2/2/g	V2^2/2/g	Loss Coefficient	Velocity Head Loss	Upstream Invert Elev.	Downstream Invert Elev.
-	-	-	(ft)	(ft/ft)	-	(min)	(min)	(min)	(cfs)	(in)	(ft/ft)	-	-	(ft/sec)	(ft/sec)	(ft)	(ft)	"Kj"	(ft)	(ft)	(ft)
STRM-1	1+06.22	0+00.00	106.22	0.0100	NW Pond	10.00	1.24	11.24	1.1	12	0.0010	5095.13	5094.90	0.00	1.43	0.00	0.03	1.25	0.03	5092.81	5091.75
STRM-2	1+03.69	0+00.00	103.69	0.0100	NE Pond	10.00	0.97	10.97	1.4	12	0.0015	5095.44	5095.18	1.43	1.78	0.03	0.05	1.25	0.01	5093.79	5092.75
STRM-3	0+64.35	0+54.31	10.04	0.0218	A-4	10.00	0.07	10.07	0.5	6	0.0079	5095.60	5095.52	1.78	2.55	0.05	0.10	1.25	0.04	5095.00	5094.79
STRM-3	0+54.31	0+44.36	9.95	0.0500	-	10.07	0.07	10.13	0.5	6	0.0079	5095.45	5095.37	2.55	2.55	0.10	0.10	0.35	0.07	5094.79	5094.29
STRM-3	0+44.36	0+14.41	29.95	0.0500	-	10.13	0.20	10.33	0.5	6	0.0079	5095.31	5095.07	2.55	2.55	0.10	0.10	0.35	0.07	5094.29	5092.79
STRM-3	0+14.41	0+04.00	10.41	0.0500	-	10.33	0.07	10.39	0.5	6	0.0079	5095.00	5094.92	2.55	2.55	0.10	0.10	0.35	0.07	5092.79	5092.27
STRM-3	0+04.00	0+00.00	4.00	0.0050	A-5	10.39	0.03	10.43	1.6	12	0.0020	5094.91	5094.90	2.55	2.04	0.10	0.06	0.50	0.01	5091.77	5091.75
STRM-4	0+17.55	0+14.54	3.01	0.0900	SW Pond	37.00	0.03	37.03	0.3	6	0.0028	5094.90	5092.09	2.04	1.51	0.06	0.04	1.25	-0.05	5092.25	5091.98
STRM-4	0+14.54	0+11.08	3.46	0.0900	-	37.03	0.04	37.07	0.3	6	0.0028	5092.06	5092.05	1.51	1.51	0.04	0.04	0.35	0.02	5091.98	5091.67
STRM-4	0+11.08	0+00.00	11.08	0.0900	-	37.03	0.12	37.16	0.3	6	0.0028	5092.03	5092.00	1.51	1.51	0.04	0.04	0.35	0.02	5091.67	5090.67
STRM-5	0+12.32	0+00.00	12.32	0.0528	SE Pond	35.00	0.05	35.05	0.9	6	0.0252	5095.18	5094.00	1.51	4.53	0.04	0.32	1.25	0.27	5094.11	5093.46
STRM-6	0+03.83	0+00.00	3.83	0.0050	A-3	10.00	0.03	10.03	0.4	6	0.0056	5095.20	5095.18	1.51	2.14	0.04	0.07	1.25	0.03	5092.77	5092.75
STRM-7	0+01.83	0+00.00	1.83	0.0050	A-2	10.00	0.00	10.00	1.8	6	0.1075	5095.44	5095.44	4.53	9.37	0.32	1.36	1.25	0.96	5094.01	5094.00

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MCDONALD'S L/C: 030-0014

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PLAN APPROVALS

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REGIONAL MGR.	
CONST. MGR.	
OPERATIONS DEPT.	
REAL ESTATE DEPT.	

CO-SIGN SIGNATURES

CONTRACTOR	
OWNER	

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DRAWN	JAN 2017	MDK
CHECKED	JAN 2017	DWL
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POST-DEVELOPED DRAINAGE PLAN

C8.1

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