CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

February 20, 2020

Holden Rennaker
Short Elliot Hendrickson Inc.
934 Main Avenue, Unit C
Durango, CO 81301

RE: **Monterey Motel**
2402 Central SW
Grading Plan Stamp Date: 2/4/20
Drainage Report Stamp Date: 2/4/20
Hydrology File: J12D030

Dear Mr. Rennaker,

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based on the submittal received on 2/13/20 the above-referenced Grading Plan and Drainage Report cannot be approved until the following corrections are made:

Prior to Site Plan for Building Permit and Building Permit:

1. Provide written and signed permission from the adjoining property owner (El Vado Place) for the work on their property.
2. The COA inlets in the valley pan should be called out as Type-D, not C.
3. Payment in Lieu (Amount = 207CF x $8/CF = $1656, per sheet C-002) of onsite management of the SWQV must be made. Take three copies of the treasury deposit slip to the Treasury and then include one copy of the paid deposit slip when resubmitting.
4. A waterblock, 0.87’ high, per COA Paving Detail No. 2426, is required at the driveway entrances.
5. Include project benchmark and datum; all existing survey, proposed grades, and benchmarks must be provided in NAVD 88.
6. Please provide the FIRM Map and floodplain note with effective date.
7. Please provide the legal description of the property on the Grading Plan.
8. Since the site is extremely flat, please provide spot elevations in enough density to verify the drainage areas and outfalls that you have indicated (top of curb, flow line, top of grate, bottom of wall, etc…).

9. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

Prior to Certificate of Occupancy (For Information):

10. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

11. City acceptance and close-out of the public Work Order will be required, unless a financial guarantee has been posted.

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

Sincerely,

Dana M. Peterson
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

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TREASURY DIVISION DAILY DEPOSIT

Transmittals for:
PROJECTS Only

Payment In-Lieu for Storm Water Quality Volume Requirement

CASH COUNT	AMOUNT	ACCOUNT NUMBER	FUND NUMBER	BUSINESS UNIT	PROJECT ID	ACTIVITY ID	AMOUNT
TOTAL CHECKS	$ 4000.00	461615	305	PCDMD	24_MS4	7547210	$ 4000.00
TOTAL AMOUNT						TOTAL DEPOSIT	**$4000.00**

Hydrology#: J12D032 Name: Monterey Motel, 23087 sf imp.
Payment In-Lieu For Storm Water Quality Volume Requirement

Address/Legal Description: 2402 Central Avenue SW
LOTS 11-A, TRACTION PARK AND CITY ELECTRIC ADDITION

DEPARTMENT NAME: Planning Department/Development Review Services, Hydrology

PREPARED BY Dana Peterson PHONE 924-3695

BUSINESS DATE 2/20/20

DUAL VERIFICATION OF DEPOSIT _____
EMPLOYEE SIGNATURE

AND BY _____
EMPLOYEE SIGNATURE

REMITTER: _____
AMOUNT: _____
BANK: _____
CHECK #: _____ DATE ON CHECK: _____

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2nd St. NW. **Bring three copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2nd St. NW, or e-mail with the Hydrology submittal to PLNDRS@cabq.gov.

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Monterey Motel Building Permit #: BP-2020-03773 Hydrology File #: _____

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

Legal Description: LOTS 11-A, TRACTION PARK AND CITY ELECTRIC ADDITION

City Address: 2402 Central Avenue SW

Applicant: Short Elliott Hendrickson Inc. Contact: Holden Rennaker

Address: 934 Main Avenue, Unit C Durango, CO 81301

Phone#: 970-459-9012 Fax#: _____ E-mail: hrennaker@sehinc.com

Owner: Sundance Village Limited Partnership Contact: Chad Rennaker

Address: 412 NW 5th Avenue, Portland, OR 97209

Phone#: 503-288-6210 Fax#: _____ E-mail: crennaker@pacificap.com

TYPE OF SUBMITTAL:_____ PLAT (___# OF LOTS) ____ RESIDENCE ____ DRB SITE X___ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes X_____ No

DEPARTMENT: X____ TRAFFIC/ TRANSPORTATION X____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
X___ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
X___ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X___ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
X___ 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
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 02/13/2020 By: HOLDEN RENNAKER

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____

NOTES:

1. NO WORK SHALL BE PERFORMED IN PUBLIC ROW WITHOUT AN APPROVED WORK ORDER OR EXCAVATION PERMIT.

EXISTING CONDITIONS:

THE PROPOSED DEVELOPMENT IS PRESENTLY AN EXISTING MOTEL THAT IS PREDOMINANTLY ASPHALT AND CONCRETE COVERED, WITH AREAS OF COMPACTED GRAVEL AND MINIMAL LANDSCAPING. THE EXISTING SITE DRAINS TO A LOW POINT IN THE SOUTH DRIVE AISLE WHERE IT IS CAPTURED BY A PRIVATE STORM DRAIN INLET. FLOWS FROM THIS INLET ARE THEN CONVEYED VIA A 6-IN STORM DRAIN LINE TO AN EXISTING CITY 18-IN STORM DRAIN TO THE EAST OF THE PROJECT SITE. MINOR NUISANCE FLOWS SURFACE FLOW TO BOTH NEW YORK AVENUE AND CENTRAL AVENUE.

TOTAL RUNOFF FROM THE EXISTING SITE WAS CALCULATED IN TABLE 1 OF THIS PLAN.

ADJACENT PROPERTIES WERE NOT FOUND TO DISCHARGE ONTO THE PROJECT SITE. THE EAST AND WEST LOT LINES HAVE AN EXISTING CMU WALL THAT PREVENT FLOWS FROM ENTERING OR LEAVING THE SITE.

PROPOSED CONDITIONS:

THE PROJECT WILL CONSIST OF TWO PHASES. PHASE 1 IS THE RENOVATION OF THE EXISTING MOTEL BUILDING WHICH RESULTS IN A SMALLER BUILDING AREA BASED ON THE DEMOLITION OF AN ADDITION ON THE WEST MOTEL BUILDING. PHASE 2 IS FOR A NEW BUILDING AROUND THE EXISTING POOL. THE PRELIMINARY FOOTPRINT OF THE BUILDING FOR PHASE 2 WAS INCLUDED IN ALL STORM DRAIN CALCULATIONS TO ENSURE ADEQUATE FEATURE SIZING AND FOR DEVELOPED RUNOFF CALCULATIONS.

THE PROPOSED SITE WAS DESIGNED TO HAVE SLIGHTLY REDUCED IMPERVIOUS AREA FROM EXISTING CONDITIONS.

THE MIDDLE PORTION OF THE SITE WAS DIVIDED INTO BASINS A1, A2, A4, AND A5 WHICH WERE DESIGNED TO DRAIN TO THEIR RESPECTIVELY NAMED INLETS. INLET A3 IS NEAR A HIGH POINT IN THE GUTTER PAN WHICH RESULTS IN NEGLIGIBLE FLOW. THIS INLET WAS DESIGNED PREMARILY TO PROVIDE A CHANGE OF DIRECTION OF THE STORM DRAIN PIPE.

FLOWS FROM THE ROOF AND FROM BEHIND EACH BUILDING WILL BE CONVEYED VIA A STORM DRAIN COLLECTION SYSTEM THAT RUNS BEHIND EACH BUILDING. ROOF DOWNSPOUTS WERE DESIGNED TO DISCHARGE INTO A SMALL AREA DRAIN WHICH WILL TIE INTO THESE COLLECTION LINES.

PONDING FEATURES ON-SITE WERE NOT REASONABLY ABLE TO BE DESIGNED BASED ON THE CONSTRAINTS OF THE SITE. 23,087-SF OF IMPERVIOUS AREA WILL NOT BE TREATED ON-SITE AND THE DEVELOPER IS REQUESTING TO PAY A FEE IN-LIEU OF MANAGING ON SITE PER TABLE 6.17 OF THE DRAFT DPM. THIS AREA INCLUDES THE IMPERVIOUS AREA OF THE FUTURE BUILDING AND POOL DECK.

STORM VOLUMES AND PEAK FLOW CALCULATIONS ARE SHOWN IN TABLES 3 AND 4. WATER QUALITY VOLUME CALCULATIONS ARE SHOWN IN TABLE 5.

THE DEVELOPED OVERALL FLOWS WILL BE SLIGHTLY REDUCED FROM THE EXISTING CONDITIONS, AS SHOWN IN TABLE 2. THE RUNOFF PATTERN WAS ALTERED SLIGHTLY TO CONVEY FLOWS TO AN EXISTING STORM DRAIN MANHOLE AS OPPOSED TO THE EXISTING 6-IN STORM DRAIN CONNECTION.

PROJECT BACKGROUND INFORMATION

PROJECT AREA: 0.66 ACRES

ZONE: 2

FROM TABLE 6.7 FOR ZONE 2			
	EXCESS PRECIPITATION (INCHES)		
TREATMENT	2-YR	10-YR	100-YR
A	0	0.15	0.62
B	0.02	0.3	0.8
C	0.16	0.48	1.03
D	0.98	1.51	2.33

FROM TABLE 6.8 FOR ZONE 2			
	PEAK DISCHARGE (CFS/ACRE)		
TREATMENT	2-YR	10-YR	100-YR
A	0	0.41	1.71
B	0.08	0.95	2.36
C	0.61	1.59	3.05
D	1.66	2.71	4.34

TABLE 1 - EXISTING SITE OVERALL RUNOFF

		PEAK (CFS)		
LAND TREATMENT	AREA (ACRES)	2-YR	10-YR	100-YR
B	0.01	0.00	0.01	0.02
C	0.11	0.07	0.17	0.34
D	0.55	0.91	1.49	2.39
TOTAL	0.67	0.98	1.67	2.75

TABLE 2 - DEVELOPED SITE OVERALL RUNOFF

		PEAK (CFS)		
LAND TREATMENT	AREA (ACRES)	2-YR	10-YR	100-YR
B	0.14	0.01	0.13	0.33
C	0	0.00	0.00	0.00
D	0.53	0.88	1.44	2.30
TOTAL	0.67	0.89	1.57	2.63

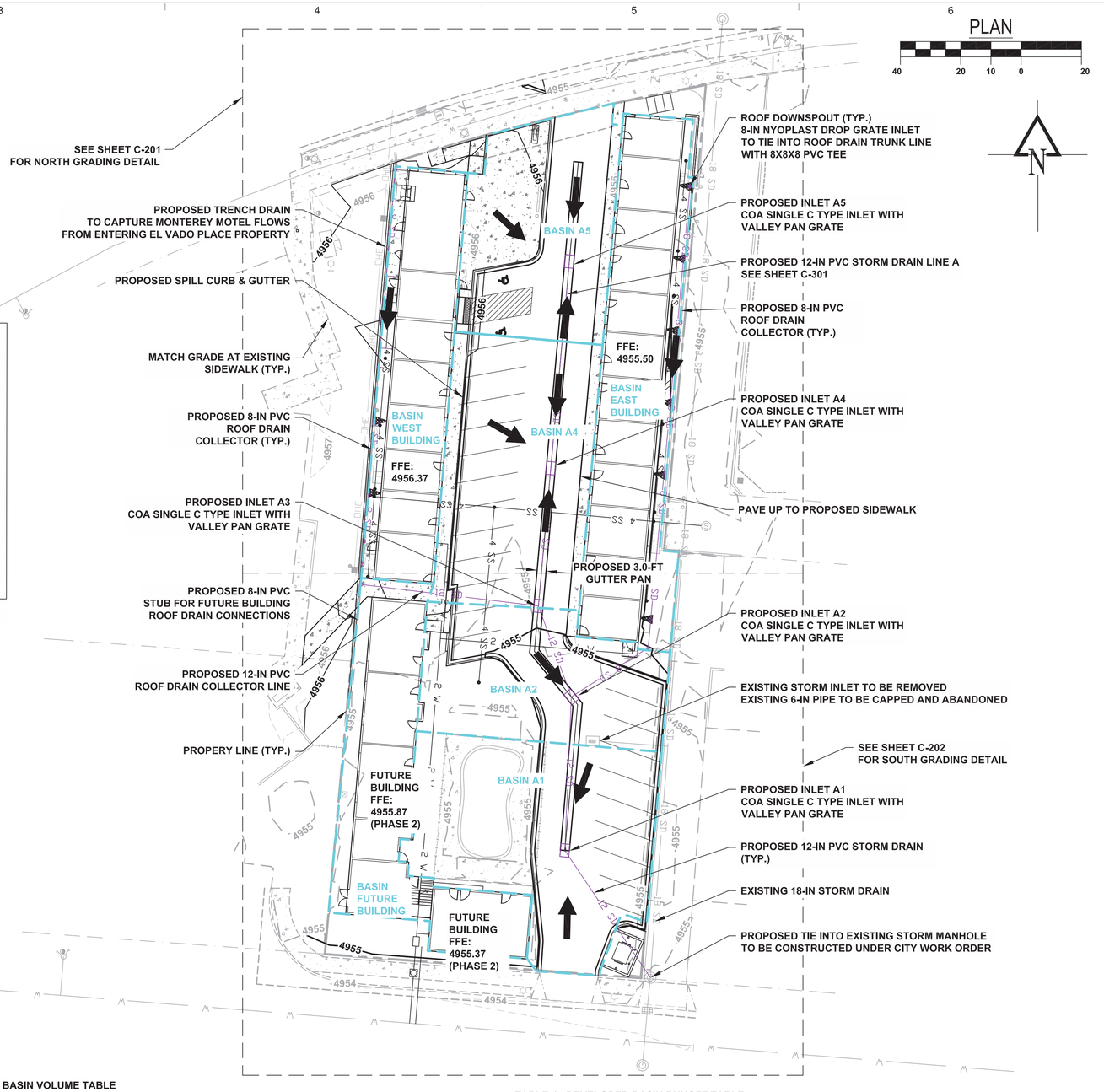


TABLE 3 - DEVELOPED BASIN VOLUME TABLE

BASIN	TREATMENT B AREA (ACRES)	TREATMENT D AREA (ACRES)	TOTAL AREA (ACRES)	EXCESS PRECIPITATION (IN)	V100 - 360 (CF)	V100 - 1440 (CF)	V100 - 4 DAY (CF)	V100 - 10 DAY (CF)
A1	0.01	0.11	0.12	2.203	959	1134	1373	1656
A2	0.02	0.08	0.1	2.024	735	880	1080	1316
A4	0	0.1	0.1	2.33	846	991	1191	1427
A5	0	0.08	0.08	2.33	677	793	953	1141
WEST BUILDING	0.02	0.06	0.08	1.948	566	682	841	1030
EAST BUILDING	0.02	0.08	0.1	2.024	735	880	1080	1316
FUTURE BUILDING	0.02	0.06	0.08	1.948	566	682	841	1030

TABLE 4 - DEVELOPED BASIN RUNOFF TABLE

BASIN	Q2 (CFS)	Q10 (CFS)	Q100 (CFS)
A1	0.18	0.31	0.50
A2	0.13	0.24	0.39
A4	0.17	0.27	0.43
A5	0.13	0.22	0.35
WEST BUILDING	0.10	0.18	0.31
EAST BUILDING	0.13	0.24	0.39
FUTURE BUILDING	0.10	0.18	0.31

TABLE 5 - DEVELOPED WATER QUALITY TABLE

BASIN	PRIVATE IMPERVIOUS AREA (SF)	80TH PERCENTILE EVENT (IN)	VOLUME REQUIRED (CF)	VOLUME PROVIDED (CF)	FEE-IN LIEU OF VOLUME (CF)	FEE-IN LIEU OF AREA (SF)
SITE	23087	0.26	500	0	500	23087

DESIGN PLUS LLC
2415 PRINCETON DR. NE, SUITE E
ALBUQUERQUE, NM 87107
505.843.7587
www.designplusabq.com

HOLDEN DANE RENNAKER NEW MEXICO 25616 02/04/2020 PROFESSIONAL ENGINEER

MONTEREY MOTEL
2402 CENTRAL AVE SW
ALBUQUERQUE, NM 87104

PERMIT SUBMITTAL

DATE: 02/04/2020

REVISIONS

DRAWN BY: HR

CHECKED BY: PR

SHEET TITLE

GRADING AND DRAINAGE PLAN

C-102

PREPARED BY:

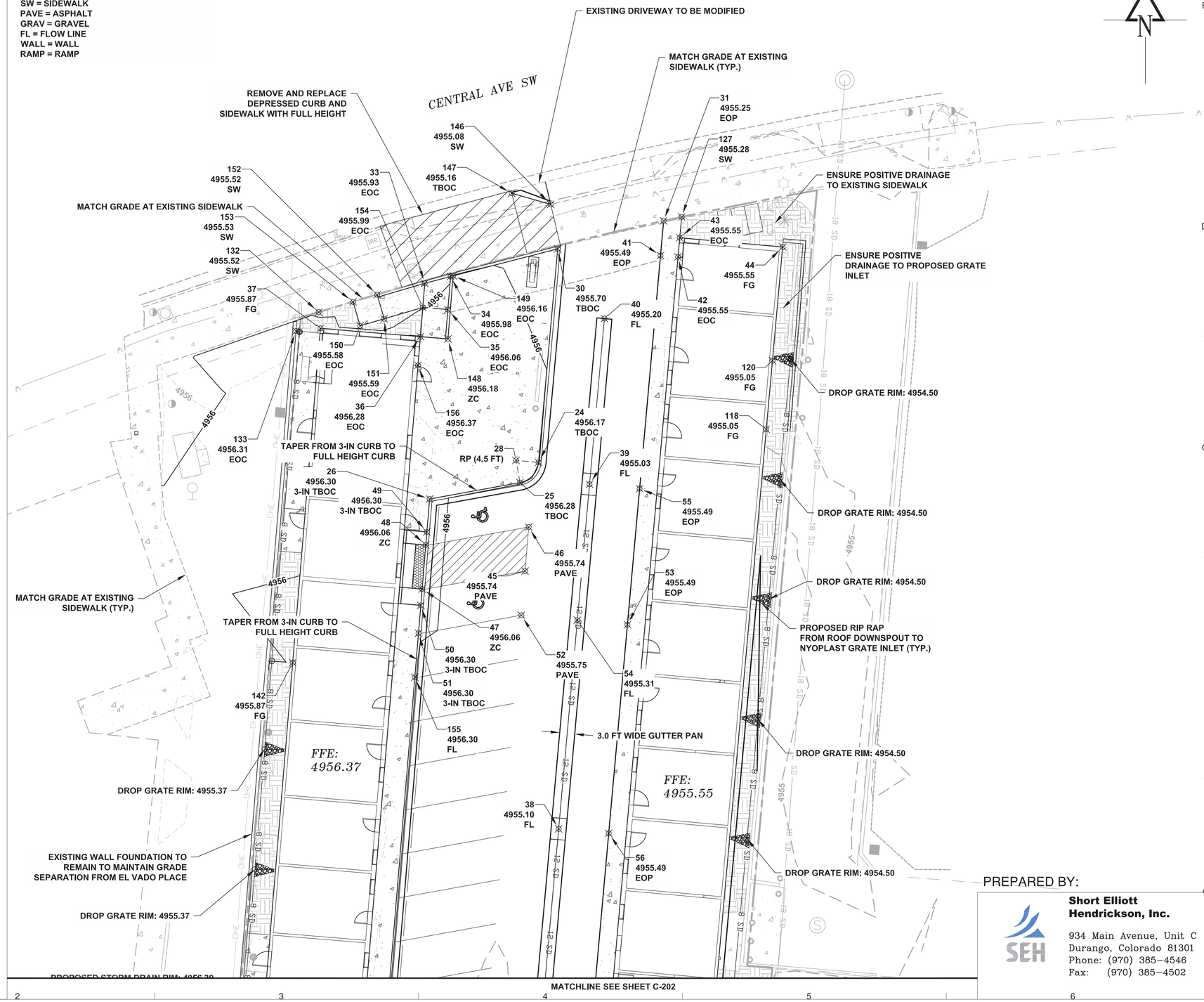
Short Elliott Hendrickson, Inc.
934 Main Avenue, Unit C
Durango, Colorado 81301
Phone: (970) 385-4546
Fax: (970) 385-4502

Point Table				
Point #	Northing	Easting	Elevation	Description
24	1490186.75	1513075.70	4956.17	TBOC
25	1490182.72	1513072.02	4956.28	TBOC
26	1490179.47	1513054.03	4956.30	3-IN TBOC
28	1490187.15	1513071.21	4956.20	RP (4.5 FT)
30	1490229.21	1513079.50	4955.70	TBOC
31	1490234.79	1513100.59	4955.25	EOP
33	1490222.37	1513053.07	4955.93	EOC
34	1490223.72	1513058.20	4955.98	EOC
35	1490217.16	1513057.66	4956.06	EOC
36	1490211.76	1513052.19	4956.28	EOC
37	1490213.41	1513032.30	4955.87	FG
38	1490113.85	1513079.70	4955.10	FL
39	1490182.40	1513085.85	4955.03	FL
40	1490215.35	1513088.80	4955.20	FL
41	1490227.91	1513099.97	4955.49	EOP
42	1490227.61	1513103.46	4955.55	EOC
43	1490231.43	1513103.80	4955.55	EOC
44	1490229.59	1513124.27	4955.55	FG
45	1490165.12	1513073.02	4955.74	PAVE
46	1490173.89	1513073.74	4955.74	PAVE
47	1490161.55	1513052.55	4956.06	ZC
48	1490170.32	1513053.27	4956.06	ZC
49	1490172.91	1513053.49	4956.30	3-IN TBOC
50	1490158.31	1513052.28	4956.30	3-IN TBOC
51	1490152.78	1513051.82	4956.30	3-IN TBOC
52	1490156.35	1513072.29	4955.75	PAVE
53	1490154.46	1513093.38	4955.49	EOP
54	1490155.35	1513083.42	4955.31	FL
55	1490181.51	1513095.81	4955.49	EOP
56	1490112.96	1513089.66	4955.49	EOP
118	1490193.33	1513121.01	4955.05	FG
120	1490206.97	1513122.24	4955.05	FG
127	1490235.57	1513104.17	4955.28	SW
132	1490216.63	1513031.96	4955.52	SW
133	1490212.87	1513027.45	4956.31	EOC
142	1490146.92	1513026.79	4955.87	FG
146	1490238.07	1513078.12	4955.08	SW
147	1490240.29	1513070.36	4955.16	TBOC
148	1490211.32	1513057.68	4956.18	ZC
149	1490223.86	1513058.73	4956.16	EOC
150	1490213.91	1513040.20	4955.58	EOC
151	1490215.31	1513045.00	4955.59	EOC
152	1490220.09	1513043.61	4955.52	SW
153	1490218.67	1513038.81	4955.53	SW
154	1490217.57	1513052.68	4955.99	EOC

NOTES:

FFE = FINISHED FLOOR ELEVATION
FG = FINISHED GRADE
TBOC = TOP BACK OF CURB
ZC = TOP BACK OF ZERO CURB
EOC = EDGE OF CONCRETE
EOP = EDGE OF PAVEMENT
SW = SIDEWALK
PAVE = ASPHALT
GRAV = GRAVEL
FL = FLOW LINE
WALL = WALL
RAMP = RAMP

PLAN
20 10 5 0 10



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2402 CENTRAL AVE SW
ALBUQUERQUE, NM 87104

PERMIT SUBMITTAL

DATE: 02/04/2020

REVISIONS

DRAWN BY: HR

CHECKED BY: PR

SHEET TITLE

NORTH DETAILED GRADING PLAN

C-201

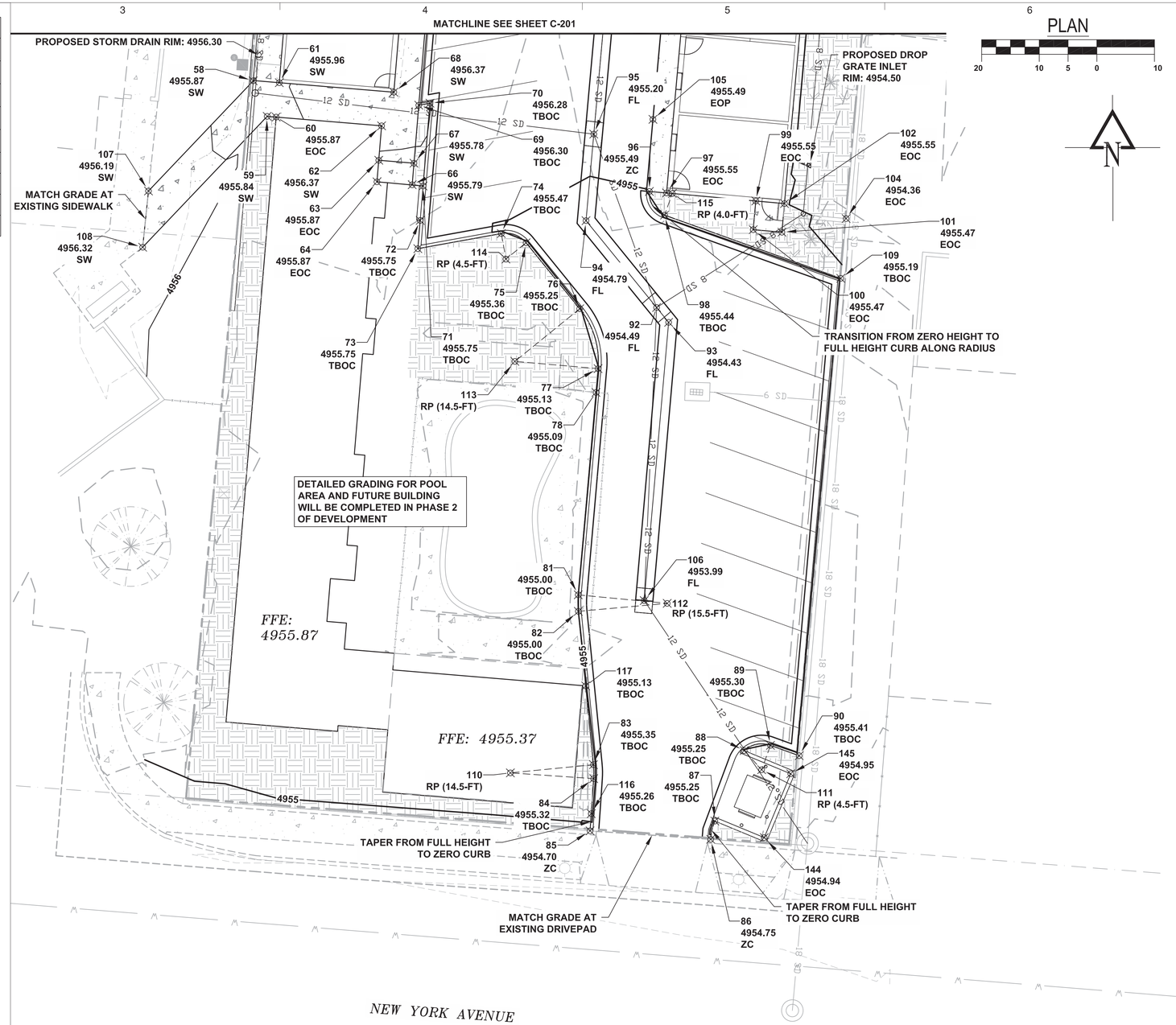
PREPARED BY:

Short Elliott Hendrickson, Inc.

934 Main Avenue, Unit C
Durango, Colorado 81301
Phone: (970) 385-4546
Fax: (970) 385-4502

Point Table				
Point #	Northing	Easting	Elevation	Description
58	1490077.43	1513016.48	4955.87	SW
59	1490071.26	1513018.90	4955.84	SW
60	1490071.13	1513020.46	4955.87	EOC
61	1490077.11	1513021.00	4955.96	SW
62	1490069.61	1513038.77	4956.37	SW
63	1490063.63	1513038.27	4955.87	EOC
64	1490059.88	1513037.96	4955.87	EOC
66	1490059.38	1513044.07	4955.79	SW
67	1490063.13	1513044.39	4955.78	SW
68	1490075.46	1513040.89	4956.37	SW
69	1490073.20	1513045.22	4956.30	TBOC
70	1490073.55	1513047.16	4956.28	TBOC
71	1490059.16	1513045.96	4955.75	TBOC
72	1490053.18	1513045.47	4955.75	TBOC
73	1490048.27	1513045.06	4955.75	TBOC
74	1490050.90	1513059.55	4955.47	TBOC
75	1490049.30	1513063.85	4955.36	TBOC
76	1490037.83	1513073.16	4955.25	TBOC
77	1490027.43	1513076.35	4955.13	TBOC
78	1490023.29	1513075.99	4955.09	TBOC
81	1489988.14	1513072.91	4955.00	TBOC
82	1489985.27	1513072.93	4955.00	TBOC
83	1489958.62	1513075.55	4955.35	TBOC
84	1489956.20	1513075.59	4955.32	TBOC
85	1489947.13	1513074.96	4954.70	ZC
86	1489945.66	1513095.91	4954.75	ZC
87	1489948.83	1513096.62	4955.25	TBOC
88	1489961.08	1513101.72	4955.25	TBOC
89	1489961.98	1513106.28	4955.30	TBOC
90	1489960.18	1513111.26	4955.41	TBOC
92	1490038.05	1513086.51	4954.49	FL
93	1490035.47	1513088.60	4954.43	FL
94	1490053.14	1513074.26	4954.79	FL
95	1490068.17	1513075.60	4955.20	FL
96	1490058.22	1513085.25	4955.49	ZC
97	1490057.95	1513088.24	4955.55	EOC
98	1490054.09	1513087.89	4955.44	TBOC
99	1490056.56	1513103.73	4955.55	EOC
100	1490051.58	1513103.28	4955.47	EOC
101	1490051.13	1513108.26	4955.47	EOC
102	1490056.11	1513108.71	4955.55	EOC
104	1490053.50	1513119.42	4954.36	EOC
105	1490070.74	1513085.88	4955.49	EOP
106	1489987.13	1513084.37	4953.99	FL
107	1490058.29	1512998.29	4956.19	SW
108	1490048.52	1512997.28	4956.32	SW
109	1490043.12	1513118.48	4955.19	TBOC
110	1489957.20	1513061.12		RP (14.5-FT)
111	1489957.75	1513104.75	4954.85	RP (4.5-FT)

Point Table				
Point #	Northing	Easting	Elevation	Description
112	1489986.65	1513088.35	4954.11	RP (15.5-FT)
113	1490028.69	1513061.90	4955.41	RP (14.5-FT)
114	1490046.47	1513060.35	4955.43	RP (4.5-FT)
115	1490057.86	1513089.24		RP (4.0-FT)
116	1489950.11	1513075.17	4955.26	TBOC
117	1489972.31	1513074.20	4955.13	TBOC
144	1489945.96	1513105.20	4954.94	EOC
145	1489957.05	1513109.79	4954.95	EOC



NOTES:

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PERMIT SUBMITTAL

DATE: 02/04/2020

REVISIONS

DRAWN BY: HR

CHECKED BY: PR

SHEET TITLE

SOUTH DETAILED GRADING PLAN

C-202

WEST STORM STRUC 3
RIM: 4953.63
N:1490075.31
E:1513016.81
WEST STORM PIPE 2 INV: 4952.05
WEST STORM PIPE 3 INV: 4952.53

PROPOSED 8-IN STORM STUB

8-IN PVC PIPE
BEARING: S4° 37' 40.92"W
LENGTH: 72.2-FT

BEGIN CONTINUOUS TRENCH DRAIN
RIM: 4956.30
N:1490147.26
E:1513022.64
WEST STORM PIPE 1 INV: 4952.86
WEST STORM PIPE 2 INV: 4952.41

CONTINUOUS TRENCH DRAIN W/
8-IN PVC PIPE
BEARING: S4° 49' 00.80"W
LENGTH: 65.7-FT

PLAN
20 10 5 0 10

12-IN PVC PIPE
BEARING: S83° 04' 45.84"E
LENGTH: 58.4-FT

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM:4956.30
N:1490081.93
E:1513017.35

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM: 4955.37
N:1490105.85
E:1513019.28

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM:4955.37
N:1490129.77
E:1513021.22

END TRENCH DRAIN
RIM: 4956.30
N:1490212.71
E:1513028.15
WEST STORM PIPE 1 INV: 4953.19

4956

PROPOSED INLET A5
COA SINGLE C TYPE INLET WITH
VALLEY PAN GRATE
STA: 2+55.49
N: 1490182.40
E: 1513085.85

PROPOSED INLET A1
COA SINGLE C TYPE INLET WITH
VALLEY PAN GRATE
STA: 0+57.81
N: 1489987.13
E: 1513084.37

PROPOSED INLET A3
COA SINGLE C TYPE INLET WITH
VALLEY PAN GRATE
STA: 1+40.81
N: 1490068.17
E: 1513075.60

PROPOSED INLET A4
COA SINGLE C TYPE INLET WITH
VALLEY PAN GRATE
STA: 1+86.66
N: 1490113.85
E: 1513079.70

PI: 1+40.91
PI: 1+86.66
PI: 0+57.81
PI: 1+08.77

2+00
2+72

12-IN PVC PIPE
BEARING: S5° 07' 26.88"W
LENGTH: 42.9-FT

12-IN PVC PIPE
BEARING: S5° 07' 26.88"W
LENGTH: 65.9-FT

END STORM ALIGNMENT
STA:2+71.83
N:1490198.67
E:1513087.31

TIE INTO EXISTING STORM MANHOLE
STA: 0+06.98
N: 1489944.94
E: 1513112.72

1+00

12-IN PVC PIPE
BEARING: S2° 24' 37.09"W
LENGTH: 48.0-FT

12-IN PVC PIPE
BEARING: S33° 53' 51.49"E
LENGTH: 47.1-FT

12-IN PVC PIPE
BEARING: S10° 53' 30.23"E
LENGTH: 38.4-FT

8-IN PVC PIPE
BEARING: S5° 23' 52.14"W
LENGTH: 29.4-FT

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM: 4954.50
N:1490063.75
E:1513112.83

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM:4954.50
N:1490111.72
E:1513117.18

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM: 4954.50
N:1490135.62
E:1513119.35

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM: 4954.50
N:1490159.52
E:1513121.52

8-IN NYLOPLAST DROP GRATE INLET (TYP.)
RIM:4954.50
N:1490183.43
E:1513123.68

PROPOSED INLET A2
COA SINGLE C TYPE INLET WITH
VALLEY PAN GRATE
STA: 1+08.77
N: 1490038.05
E: 1513086.51

8-IN PVC PIPE
BEARING: S5° 10' 46.98"W
LENGTH: 153.6-FT

EAST STORM STRUC 2
RIM: 4954.4
N:1490054.34
E:1513111.98
EAST STORM PIPE 1 INV: 4951.19
EAST STORM PIPE 2 INV: 4951.53

RIP RAP RUNDOWN (TYP.)

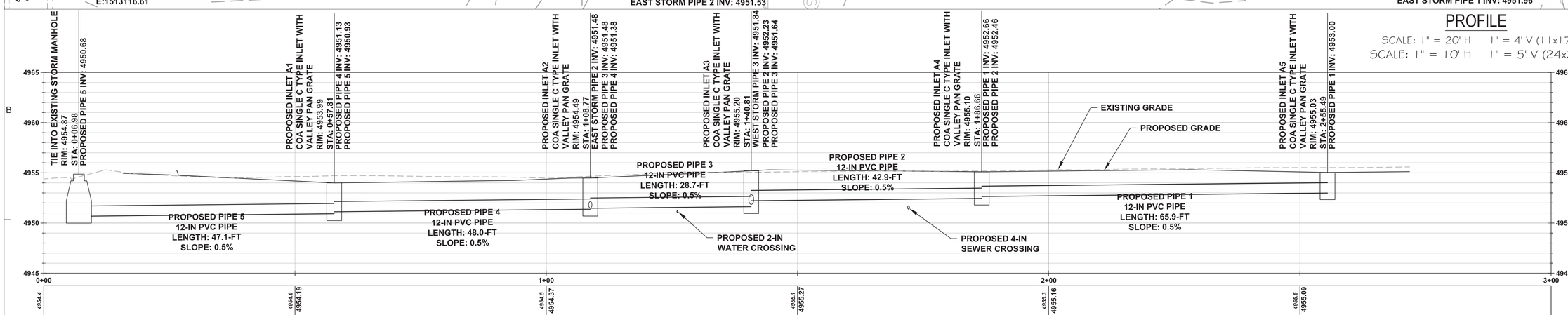
EAST STORM STRUC 1
8-IN NYOPLAST DROP GRATE INLET
TO TIE IN TO ROOF DRAIN TRUNKLINE
RIM: 4954.50
N:1490207.33
E:1513125.85
EAST STORM PIPE 1 INV: 4951.96

BEGIN STORM ALIGNMENT
STA:0+00.00
N:1489939.15
E:1513116.61

0+00

PROFILE

SCALE: 1" = 20' H 1" = 4' V (11x17)
SCALE: 1" = 10' H 1" = 5' V (24x36)



PREPARED BY:

Short Elliott Hendrickson, Inc.

934 Main Avenue, Unit C
Durango, Colorado 81301
Phone: (970) 385-4546
Fax: (970) 385-4502

DESIGN PLUS LLC
2415 PRINCETON DR. NE, SUITE E
ALBUQUERQUE, NM 87107
505. 843. 7587
www.designplusabq.com

HOLDEN DANE RENNAKER
NEW MEXICO
25618
02/04/2020
PROFESSIONAL ENGINEER

MONTEREY MOTEL
2402 CENTRAL AVE SW
ALBUQUERQUE, NM 87104

PERMIT SUBMITTAL

DATE: 02/04/2020

REVISIONS

DRAWN BY: HR

CHECKED BY: PR

SHEET TITLE

STORM P-PRO

C-301

MONTEREY MOTEL

GRADING AND DRAINAGE PLAN SUPPLEMENTAL CALCULATIONS AND FINDINGS

ALBUQUERQUE, NM

HOLDEN DANE RENNAKER
NEW MEXICO
25618
02/04/2020
PROFESSIONAL ENGINEER

February 04, 2020

Prepared by:
Short, Elliott, Hendrickson, Inc.
934 Main Ave., Unit C
Durango, CO 81301

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INTRODUCTION

The Monterey Motel project is a proposed motel renovation and addition located at 2402 Central Avenue SW, Albuquerque, NM 87104. The project includes two existing single story buildings which will be renovated during Phase 1 to have a combined footprint of approximately 5,900-sf. Phase 2 of the project will have an additional building around the existing pool deck that will have a footprint of 2,805-sf.

The following report summarizes calculations and findings supplemental to the submitted Grading and Drainage Plan. The Grading and Drainage Plan highlights both the existing and proposed conditions and flow calculations for each basin. The following sections provide more detail into certain design elements of the drainage scheme.

STORMWATER CONVEYANCE

Basins A1-A5 were all designed to surface flow to a concrete valley pan in the center of the drive aisle. The valley pan was designed to have a series of high and low points with a proposed inlet at each low point. These inlets were designed to be drained by a proposed 12-in storm drain trunk line. Proposed roof drain lines were also designed to tie into this trunk line system.

Valley Pan Inlets

The *Hydraflow Express Extension for AutoCad Civil3D* 2018 was used to model the proposed inlets to determine the water spread during the 100-year storm. The inlets were modelled per COA Type C Single Inlets in a sag condition. *Express* output is attached and shows that the maximum spread of these inlets during the highest 100-year flow for Basins A1-A5 (0.50-cfs) results in a spread of 6-ft – within the drive aisle.

Storm Drain Trunk Line

The *Hydraflow Express Extension for AutoCad Civil3D* 2018 was used to model the highest flow in the trunk line during the 100-year storm. The storm drain pipe was modelled as being 12-in PVC with a slope of 0.5%. *Express* output is attached and shows that the total developed flow of the site (2.63-cfs) flows through the pipe with a flow depth of 0.68-ft.

Roof Drain Inlets

Each proposed roof drain was designed to flow into an 8-in Nyoplast Drop-In Grate Inlet. The maximum 100-year storm flow of a building basin (0.39 cfs for the existing East Building) was found to pool up just over 3-in from the grate rim – 0.75-ft below the finish floor elevation. This flow assumption was found to be conservative as this basin flow was designed to be split over several drop inlets.

Roof Drain Collector

The *Hydraflow Express Extension for AutoCad Civil3D* 2018 was used to model the proposed roof drain trunk line to verify the lines can adequately convey the 100-year storm. The pipe was modelled as an 8-in PVC line with 0.5% slope with a flow of 0.39-cfs (the largest building basin flow). The *Express* results attached show that the proposed lines can adequately convey the flow.

ATTACHMENTS

- Output from *Hydraflow Express Extension for Civil 3D* (Valley Pan Inlet)
- Output from *Hydraflow Express Extension for Civil 3D* (Trunk Line Pipe)
- Design Sheet for Drop Grate Inlet for Nyoplast Drop Inlets
- Output from *Hydraflow Express Extension for Civil 3D* (Roof Drain Collector)

Inlet Report

MOMO Valley Pan Inlet

Drop Grate Inlet

Location	= Sag
Curb Length (ft)	= -0-
Throat Height (in)	= -0-
Grate Area (sqft)	= 4.00
Grate Width (ft)	= 2.08
Grate Length (ft)	= 3.33

Gutter

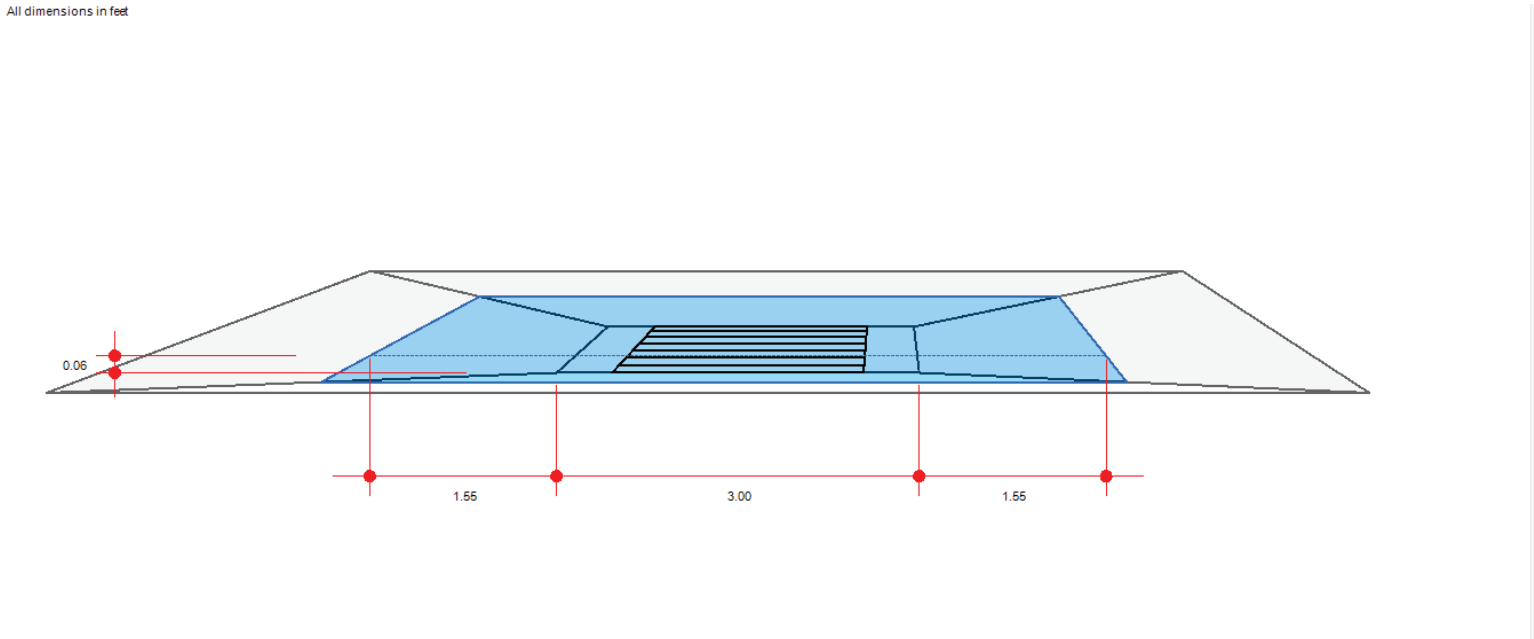
Slope, Sw (ft/ft)	= 0.040
Slope, Sx (ft/ft)	= 0.040
Local Depr (in)	= -0-
Gutter Width (ft)	= 3.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

Calculations

Compute by:	Known Q
Q (cfs)	= 0.50

Highlighted

Q Total (cfs)	= 0.50
Q Capt (cfs)	= 0.50
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 0.74
Efficiency (%)	= 100
Gutter Spread (ft)	= 6.09
Gutter Vel (ft/s)	= -0-
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Jan 29 2020

TRUNK LINE

Circular

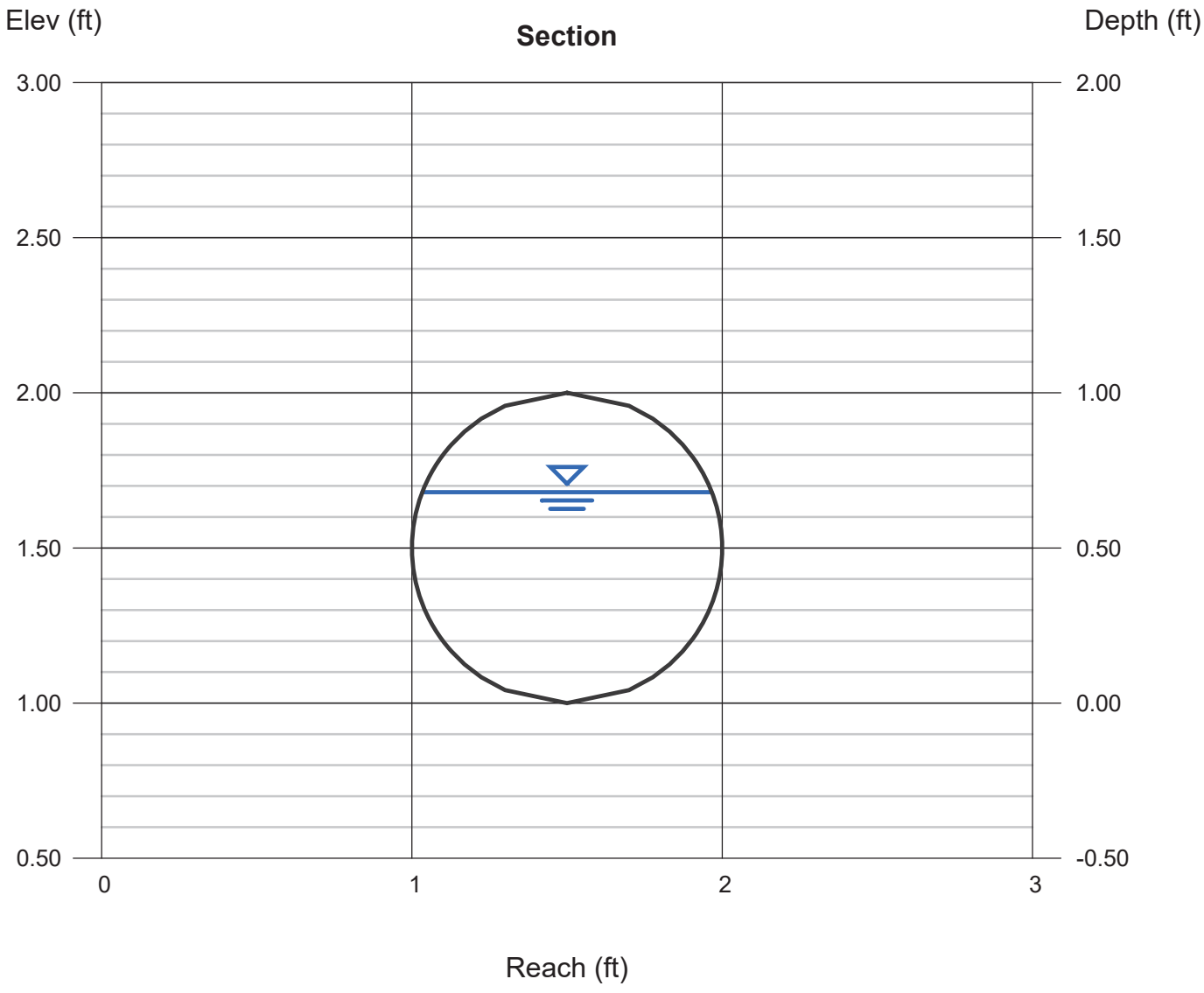
Diameter (ft)	= 1.00
Invert Elev (ft)	= 1.00
Slope (%)	= 0.50
N-Value	= 0.010

Calculations

Compute by:	Known Q
Known Q (cfs)	= 2.63

Highlighted

Depth (ft)	= 0.68
Q (cfs)	= 2.630
Area (sqft)	= 0.57
Velocity (ft/s)	= 4.62
Wetted Perim (ft)	= 1.94
Crit Depth, Yc (ft)	= 0.70
Top Width (ft)	= 0.93
EGL (ft)	= 1.01



Nyloplast Drop In Grates

Applications

Nyloplast Drop In Grates are commonly used in non-traffic applications such as green spaces as well as atrium walkway areas. The Drop In grates are designed to fit most pipe types such as ADS N-12, PVC Sewer SDR35, PVC Schedule 40 and so on. They are light weight and easy to install while maintaining the durability of a ductile iron casting making them extremely versatile for an assortment of different applications.

Specifications

Nyloplast Drop In Grates conform to ASTM A536 grade 70-50-05 for ductile iron castings. These grate designs are not load rated like some of our other casting designs and therefore should not be used in vehicular traffic applications.

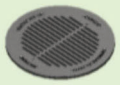
6" Drop In Grate

8" Drop In Grate

10" Drop In Grate

12" Drop In Grate

15" Drop In Grate



18" Drop In Grate

24" Drop In Grate

Inlet Capacity Information

NYLOPLAST INLET CAPACITY CHART DATA									
NYLOPLAST CASTINGS	GRATE SIZES	GRATE OPEN AREA (sq.in.)	PERIMETER OF GRATE OPENINGS (in.)	FLOW RATE AT DIFFERENT HEAD PRESSURES (cfs)				CHANGE OVER FROM WEIR FLOW TO ORIFICE FLOW	
				0.25' (3")	0.50' (6")	0.75' (9")	1.00' (12")	FLOW (cfs)	HEAD (ft)
DROP IN GRATES	6 IN	9.98	16.47	0.165	0.230	0.285	0.330	0.085	0.065
	8 IN	19.30	22.29	0.320	0.450	0.555	0.640	0.180	0.090
	10 IN	32.80	28.58	0.550	0.770	0.950	1.080	0.410	0.130
	12 IN	39.75	33.70	0.680	0.950	1.150	1.290	0.490	0.140
	15 IN	62.03	41.78	1.049	1.450	1.790	2.060	0.855	0.175
	18 IN	84.61	48.69	1.400	1.950	2.430	2.800	1.280	0.210
	24 IN	164.94	66.76	2.300	3.800	4.750	5.450	3.000	0.300

*The Most **Advanced** Name in Drainage Systems®*

Nyloplast
3130 Verona Ave.
Buford, GA 30518
1-866-888-8479
www.nyloplast-us.com

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Jan 29 2020

ROOF DRAIN COLLECTOR

Circular

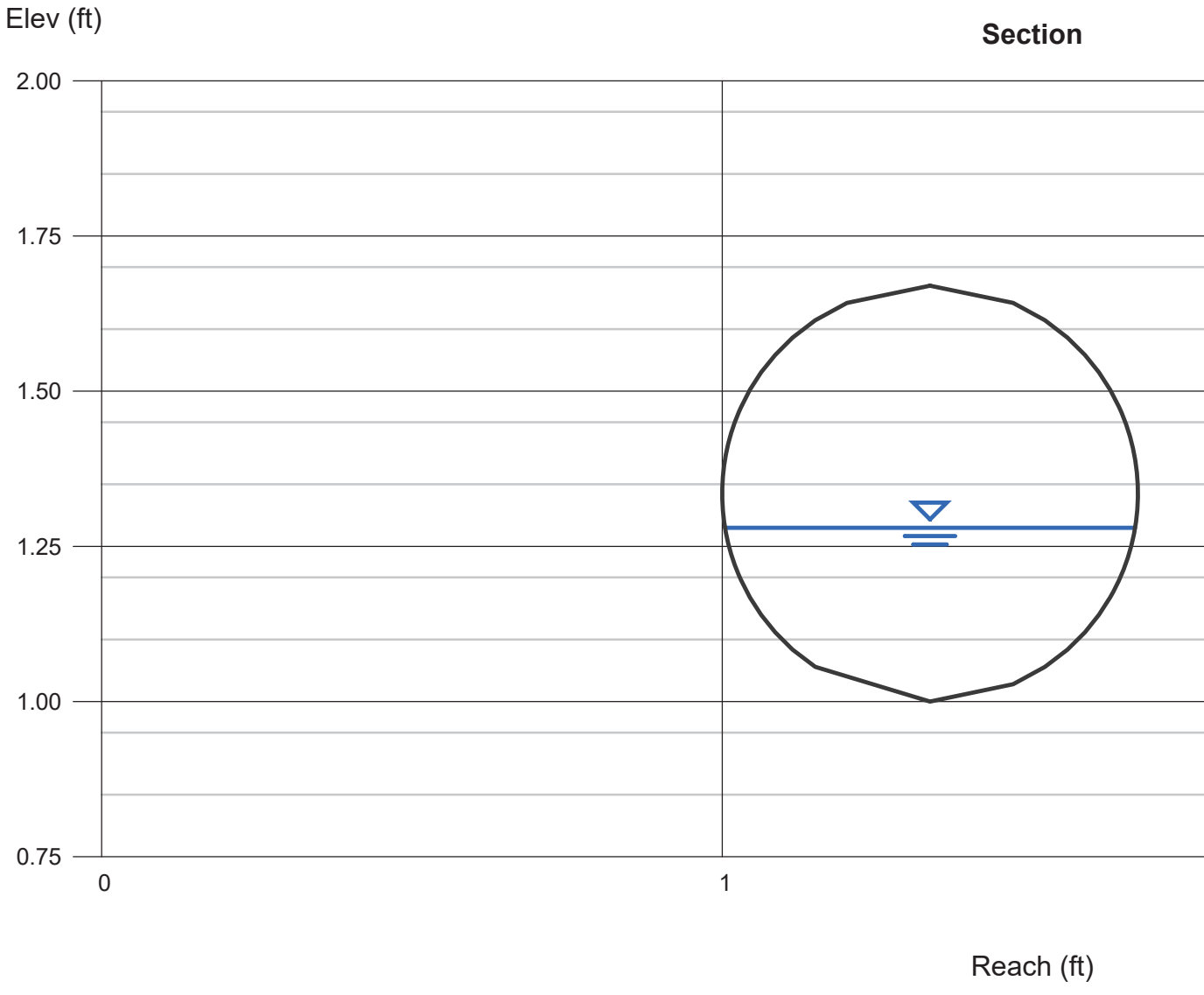
Diameter (ft)	= 0.67
Invert Elev (ft)	= 1.00
Slope (%)	= 0.50
N-Value	= 0.010

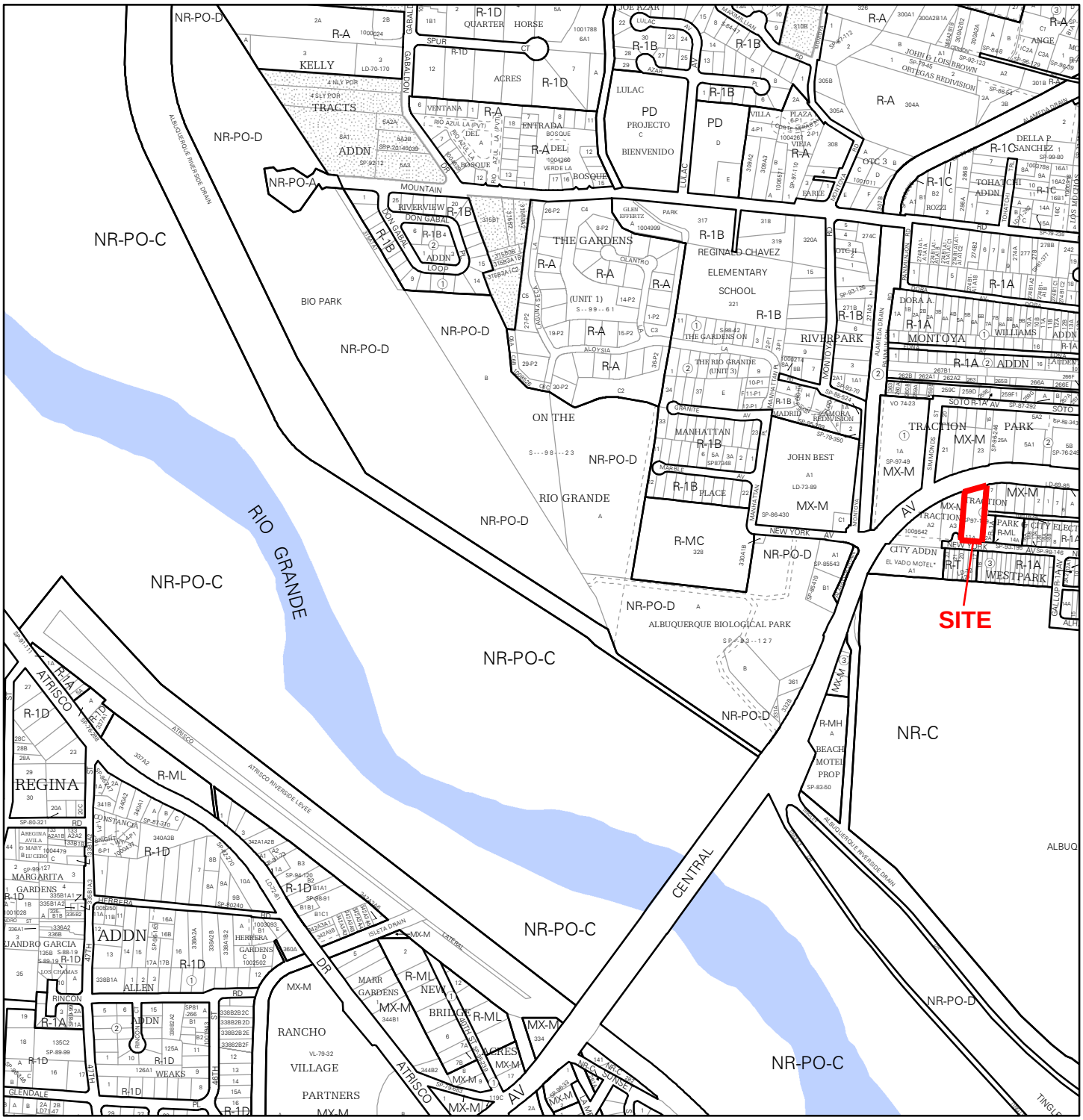
Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.39

Highlighted

Depth (ft)	= 0.28
Q (cfs)	= 0.390
Area (sqft)	= 0.14
Velocity (ft/s)	= 2.78
Wetted Perim (ft)	= 0.94
Crit Depth, Yc (ft)	= 0.29
Top Width (ft)	= 0.66
EGL (ft)	= 0.40





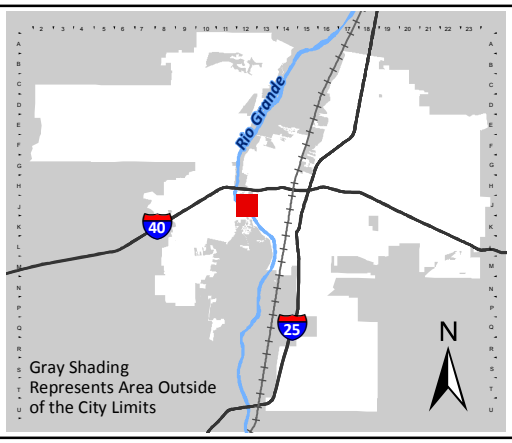
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



Zone Atlas Page:

J-12-Z

- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000