CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

March 10, 2023

Kent A. Delph, P.E.
Delph Engineering
3620 Wyoming Blvd. NE, #203
Albuquerque, NM 87111

RE: Precision Eye Center
7521 Alameda Blvd. NE
Grading & Drainage Plans
Engineer's Stamp Date: 02/28/23
Hydrology File: C19D070

Dear Mr. Delph:

PO Box 1293

Albuquerque

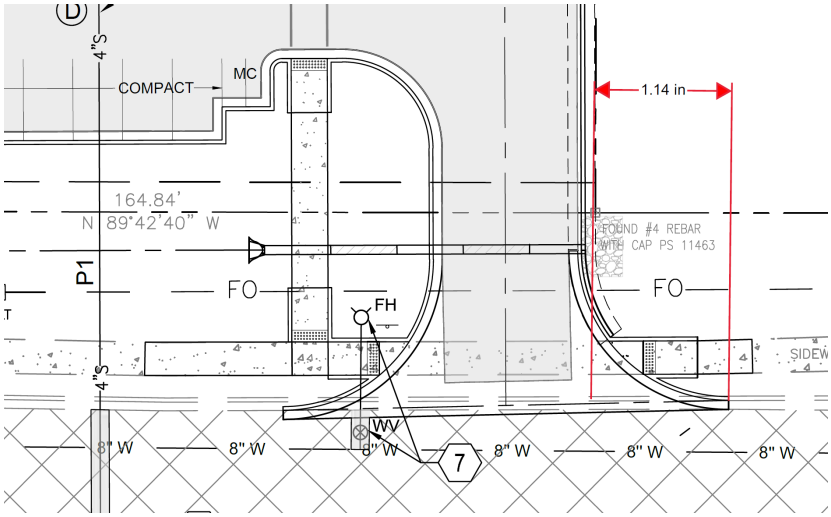
NM 87103

www.cabq.gov

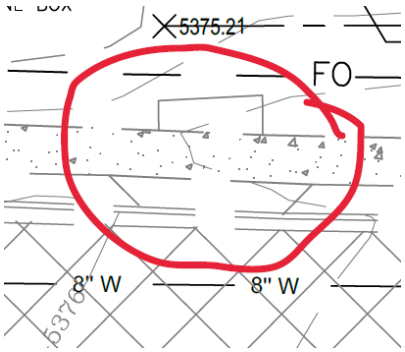
Based upon the information provided in your submittal received 03/02/2023, the Grading & Drainage Plans **are not** approved for Building Permit, Grading Permit and SO19 Permit. The following comments need to be addressed for approval of the above referenced project:

1. Please do not provide Sheets C-001 (Civil Notes), C-101 (Utility Plan), C-301 (Trash Enclosure), and D-101 to D-105 (Civil Details). Hydrology only approves Sheets C-102 (Grading Plan), C-103 (Drainage Plan), and C-201 (Wall Plan & Profile).

2. The project curb returns cannot extend beyond the property line. The curb return must become tangent at or before the property line, so please move the entrance about 23 ft to the west. Also, please make the other curb return tangent to the existing curb because it is currently not buildable as shown.



3. The existing drive pad at the southwest corner of the property needs to be called out as "Remove existing drive pad and replace with curb & gutter and sidewalk.".



4. On Sheet 103, under the Existing Conditions. Please state, "Project is with North Albuquerque Acres Master Drainage Plan by Resource Technology, Inc. October 1998 which this site has an allowable discharge rate of 3.60 cfs/ac".

PO Box 1293

Albuquerque

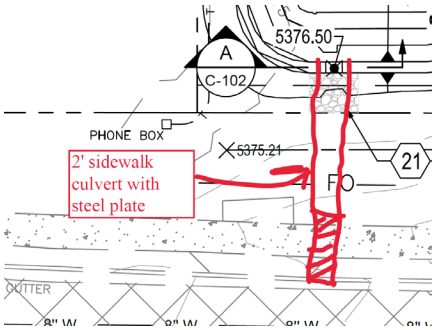
NM 87103

www.cabq.gov

5. Please note that any existing remanence of a natural arroyo is just what is left over from when La Cueva Arroyo was placed in a concrete channel, so when the adjacent lot is developed, it will be discharging into Alameda which is reflected in the above NAA Master Drainage Plan. Therefore, accommodating for this is not needed, but any existing flows can be just handled with a curb cut in the curb return to allow the flows to go into Alameda Blvd. So, the curvet that shown does not need to be installed and the grades for the drive needs to follow CoA Detail 2426 with a water block.

6. On Sheet 103, the Stormwater Quality Pond volume is incorrect. Per DPM Article 6-12 Stormwater Quality and Low-Impact Development for the sizing calculations, 0.42 inches for new development sites and 0.26 inches for redevelopment sites. This site is a new development and not a redevelopment.

7. On Sheet 102, please provide a sidewalk culvert for the spillway for the stormwater quality pond to Alameda Blvd. and label per CoA Detail 2236. Please also show the invert at the pond (this is the SWQ water surface elevation) and the invert at the existing gutter on Alameda Blvd.



8. On Sheet 103, please provide the weir calculations, per DPM Article 6-16(A), for the curb cuts and sidewalk culverts. A coefficient of 2.7 is typically used for the weir equation $Q = CLH^{2/3}$.

9. On Sheet 103, please provide a cross section of the SWQ pond with the bottom of pond elevation, top of pond elevation, and SWQ water surface elevation.

10. On Sheet 102, please provide the Benchmark information (location, description and elevation) for the survey contour information provided.

11. On Sheet 102, please provide the SO-19 Standard Notes, latest version.

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.

PO Box 1293

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

Albuquerque

Sincerely,

Renée C. Brissette

NM 87103

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

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Precision Eye Center Building Permit #: BP-2022-39517 Hydrology File #: _____

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

Legal Description: Lot 19, Block 3, Tract 2, Unit 3 North Abuquerque Acres; Section 18 T 11 N, R 4 E

City Address: 7521 Alameda Blvd. NE, Albuquerque, NM 87113

Applicant: Insight Construction Contact: Damian Chimenti

Address: 3909 12th, Street, Albuquerque, NM 87107

Phone#: (505) 506-9144 (m) Fax#: n/a E-mail: damian@insightnm.com

Owner: Dr. Rob Lavoie Contact: Dr. Rob Lavoie

Address: 8000 Paseo Del Norte NE

Phone#: (505) 291-1711 Fax#: n/a E-mail: robisgolfing@gmail.com

TYPE OF SUBMITTAL:_____ PLAT (___# OF LOTS) ____ RESIDENCE ____ DRB SITE ____ 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
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

Note: Fire 1 & TCL to be submitted separately.

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
_X_ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
_X_ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 2/28/2023 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____

PRECISION EYE CENTER
SITE IMPROVEMENTS

NOTES

1. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER, ARCHITECT, AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, ON CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, ARCHITECT, OR ENGINEER.
2. EXISTING SURVEY DATA PROVIDED TO DELPH ENGINEERING BY OWNER, DELPH ENGINEERING ACCEPTS NO LIABILITY FOR POTENTIAL ERRORS FROM THE DATA PROVIDED. CONTRACTOR IS ENCOURAGED TO POTHOLE FOR UTILITIES PRIOR TO CONSTRUCTION IN AREAS TO BE EXCAVATED.

GRADING & CONCRETE NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, 2020 (CABQ STD. SPEC.), UNLESS OTHERWISE NOTED.
2. DUST SHALL BE CONTROLLED AS REQUIRED NY CABQ.
3. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISION SHALL BE USED TO PROTECT ADJOINING DRAINAGE AREAS DURING THE CONSTRUCTION OF THE PROJECT.
5. THE AREAS OF PROPOSED IMPROVEMENTS SHALL BE CLEARED OF ALL VEGETATION AND DELETERIOUS MATER PRIOR TO BEGINNING THE GRADING OPERATION.
6. AREAS FOR OF PROPOSED FILL OR PAVING SHALL BE SCARIFIED, MOISTENED & RECOMPACTED FOR A MINIMUM DEPTH OF 10".
7. AGGREGATE BASE COURSE SHALL CONFORM TO CABQ STD. SPEC. SECTION 302, TYPE II.
8. ASPHALTIC CONCRETE SHALL CONFORM TO CABQ STD. SPEC. SECTION 116, SP-IV (Table 116.B) WITH A PG70-22 BINDER (Table 116.C.1).
9. SITE WORK CONCRETE (sidewalks, curbs, gutter) SHALL MEET CABQ STD. SPEC. SECTIONS 101 AND 340, FOR A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
8. EARTHWORK SHALL BE IN COMPLIANCE WITH WESTERN TECHNOLOGIES INC. "*GEOTECHNICAL EVALUATION REPORT - PRECISION EYE CENTER*" JANUARY 6, 2020. THIS COMPLIANCE INCLUDES REMOVING EXISTING SOILS A MINIMUM DEPTH OF 3' BELOW THE BOTTOM OF PROPOSED FOOTINGS INCLUDING A HORIZONTAL AREA OF 2 BEYOND THE FOOTING EDGE. THE FILL MATERIAL (IMPORT, NATIVE OR BLENDED) SHALL MEET THE FOLLOWING SPECIFICATION:

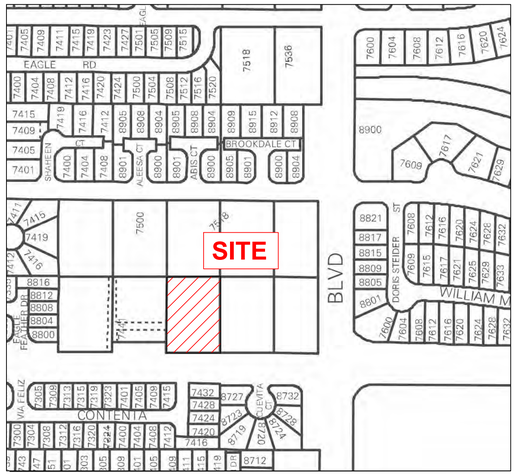
• GRADATION (ASTM C136):	PERCENT FINER BY WEIGHT
6"	100
4"	85-00
¾"	70-100
NO. 4 SIEVE	50-100
NO. 200 SIEVE	20 (MAX)

- MAXIMUM SOLUBLE SULFATES (%) 0.10
- MAXIMUM PLASTICITY INDEX ..... NON-PLASTIC

UTILITY NOTES

1. VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING ANY NEW UTILITY LINES.
2. REFER TO SITE ELECTRICAL PLANS FOR DETAIL AND LOCATION OF ELECTRICAL IMPROVEMENTS.
3. CONTRACTOR IS ENCOURAGED TO POTHOLE FOR UTILITIES PRIOR TO CONSTRUCTION IN AREAS TO BE EXCAVATED AND SPECIFICALLY AT THE CROSSING OF THE PROPOSED RETAINING WALL AND EXISTING FIBER OPTIC LINE, IN ALAMEDA BLVD. NE RIGHT-OF-WAY.
4. WATER SERVICE CONNECTION MATERIALS AND METHODS SHALL COMPLY WITH CABQ STD. SPEC. SECTION 802.
5. SANITARY SEWER MAIN CONNECTION, SERVICE LINE AND CLEANOUTS SHALL COMPLY WITH CABQ STD. SPEC. SECTIONS 901 AND 905.

REGIONAL



SITE

CIVIL SHEET INDEX

Number	Title
C-001	CIVIL NOTES
C-101	UTILITY PLAN
C-102	GRADING PLAN
C-103	DRAINAGE PLAN
C-201	WALL PLAN & PROFILE
C-301	TRASH ENCLOSURE, ACCESS & DETAILS
D-101	CIVIL DETAILS
D-102	CIVIL DETAILS
D-103	CIVIL DETAILS
D-104	CIVIL DETAILS
D-105	CIVIL DETAILS

ADDRESS:

7521 Alameda Blvd NE,
Albuquerque, NM 87113

OWNER:

Robert Lavoie
Precision Eye Center
(505) 291-1711
robisgolfing@gmail.com

ENGINEER:

DELPH ENGINEERING
Kent Delph, PE, CFM
3620 Wyoming Blvd NE, Suite 203
Albuquerque, NM 87111
(505) 206-8385
kent@delpheng.com

CABQ # BP-2022-39517

KENT A. DELPH NEW MEXICO 13939 REGISTERED PROFESSIONAL ENGINEER 2-27-23

DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

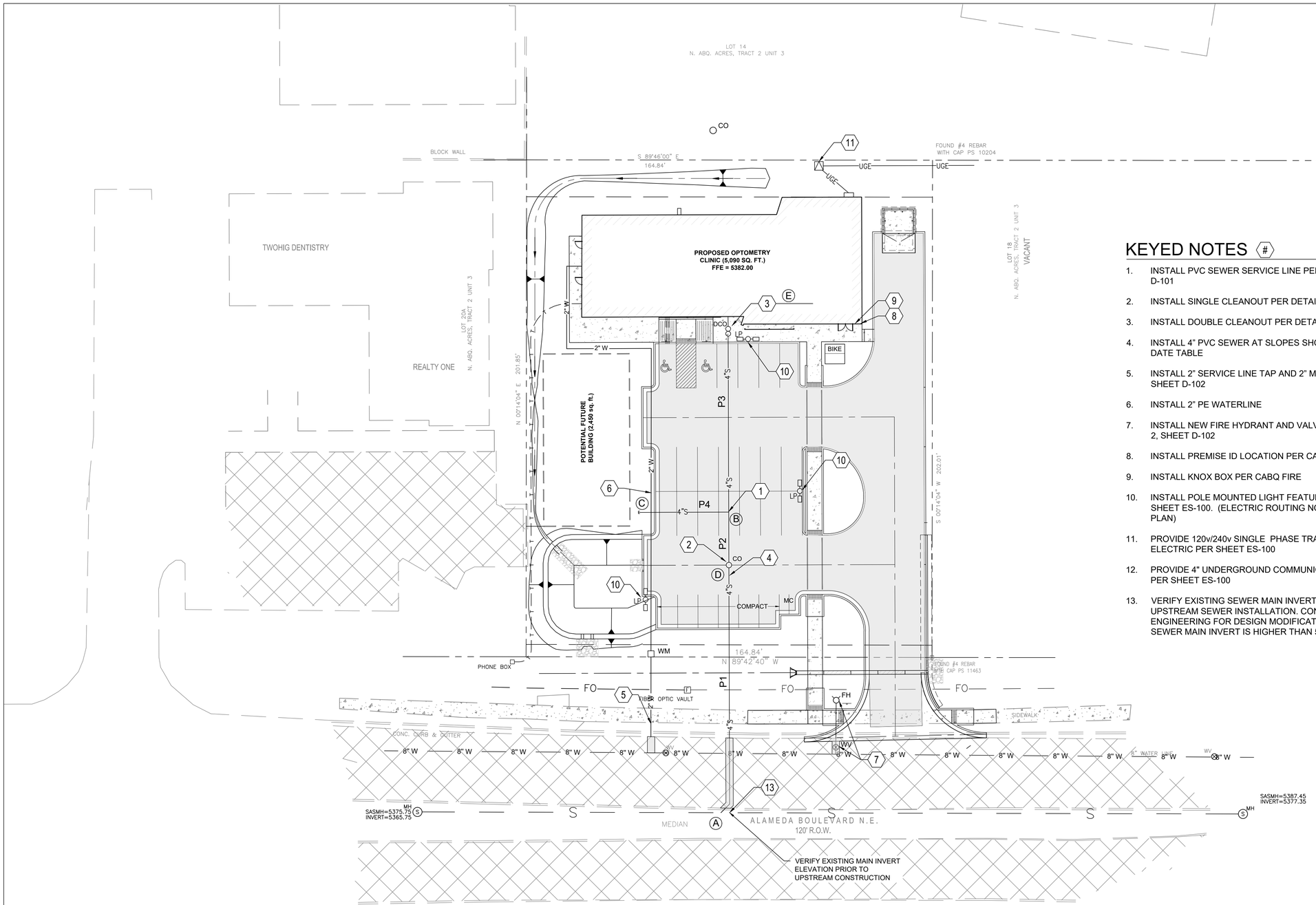
PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

CIVIL NOTES

C-001

C:\Projects\21-45 - Precision Eye\DWG_Civil_Sheets-Plans_Precision.dwg 02/28/2023 - 6:31 AM



KEYED NOTES (#)

1. INSTALL PVC SEWER SERVICE LINE PER DETAIL 6, SHEET D-101
2. INSTALL SINGLE CLEANOUT PER DETAIL 1, SHEET D-104
3. INSTALL DOUBLE CLEANOUT PER DETAIL 2, SHEET D-104
4. INSTALL 4" PVC SEWER AT SLOPES SHOWN PER SEWER DATE TABLE
5. INSTALL 2" SERVICE LINE TAP AND 2" METER PER DETAIL 3, SHEET D-102
6. INSTALL 2" PE WATERLINE
7. INSTALL NEW FIRE HYDRANT AND VALVE PER DETAILS 1 & 2, SHEET D-102
8. INSTALL PREMISE ID LOCATION PER CABQ FIRE
9. INSTALL KNOX BOX PER CABQ FIRE
10. INSTALL POLE MOUNTED LIGHT FEATURE WITH BASE PER SHEET ES-100. (ELECTRIC ROUTING NOT SHOWN ON THIS PLAN)
11. PROVIDE 120v/240v SINGLE PHASE TRANSFORMER & ELECTRIC PER SHEET ES-100
12. PROVIDE 4" UNDERGROUND COMMUNICATION CONDUIT PER SHEET ES-100
13. VERIFY EXISTING SEWER MAIN INVERT PRIOR TO NEW UPSTREAM SEWER INSTALLATION. CONTACT DELPH ENGINEERING FOR DESIGN MODIFICATION IF EXISTING SEWER MAIN INVERT IS HIGHER THAN 5372.10

STRUCTURE TABLE		
ID	DESCRIPTION	DETAILS:
A	DOUBLE CLEANOUT	RIM = 5381.18 SUMP = 5378.0
B	4" WYE	RIM = 5378.18 SUMP = 5375.0
C	4" STUB OUT	RIM = 5379.68 SUMP = 5376.5
D	SINGLE CLEANOUT	RIM = 5377.28 SUMP = 5374.1
E	MAIN CONNECTION	RIM = 5375.28 SUMP = 5372.1

UNKNOWN
VERIFY PER PLAN NOTE; 5372.10 MAX.

PIPE TABLE					
PIPE-ID	DESCRIPTION	U/S ELEV.	D/S ELEV.	LENGTH	SLOPE
P1	PVC PIPE	5374.10	5372.10	100.6'	-1.99%
P2	PVC PIPE	5375.00	5374.10	21.5'	-4.18%
P3	PVC PIPE	5378.00	5375.00	74.5'	-4.03%
P4	PVC PIPE	5376.50	5375.00	36.7'	-4.09%

N

0' 10' 20' 40' 60'

Scale: 1"=20'

CABQ # BP-2022-39517

KENT A. DELPH
NEW MEXICO
13939
REGISTERED PROFESSIONAL ENGINEER
2.22.23

DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

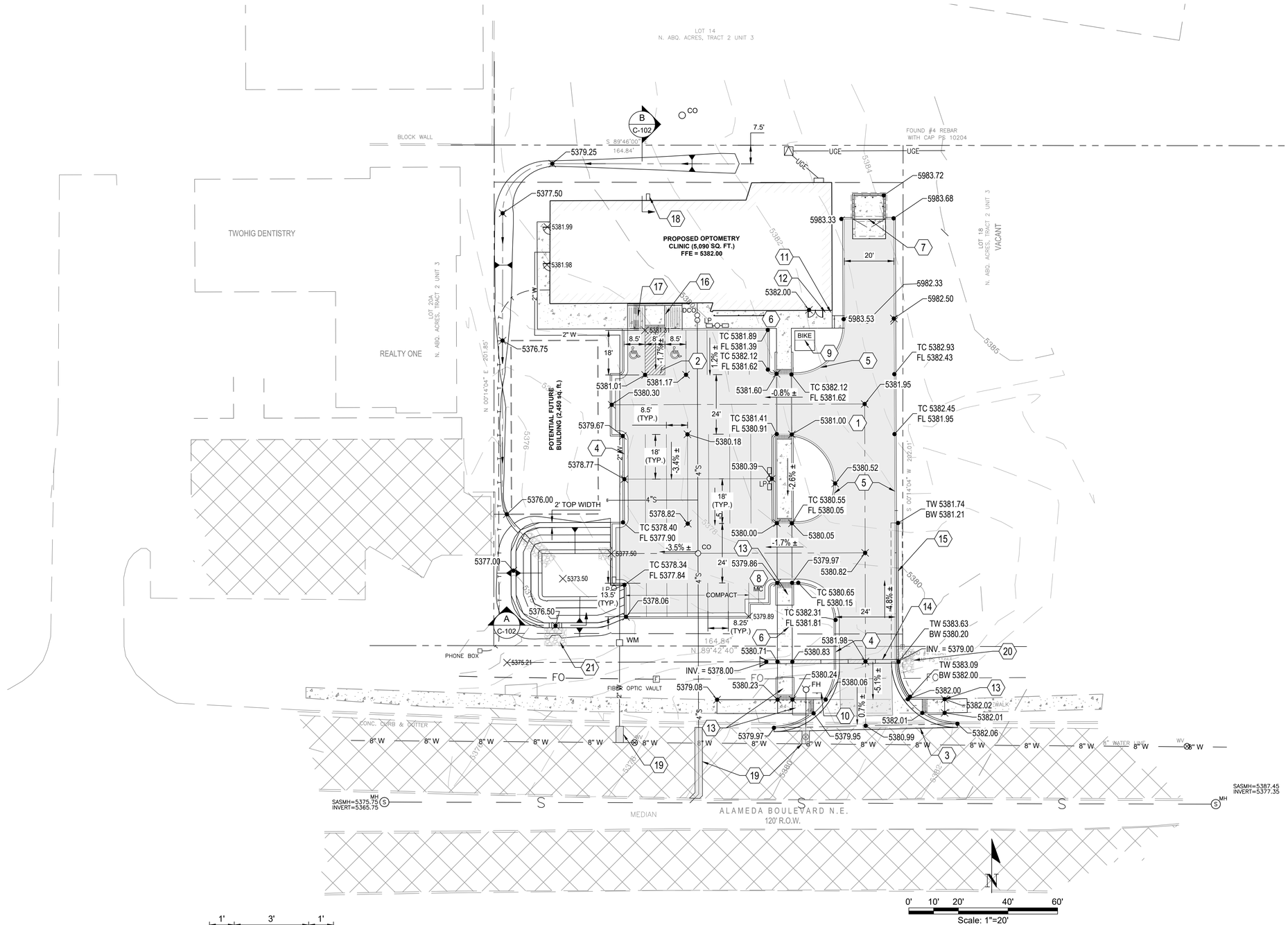
PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

UTILTIY PLAN

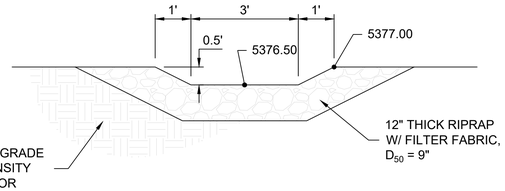
C-101

C:\Projects\21-45 - Precision Eye\DWG_Civil_Sheets-Plans_Precision.dwg 02/28/2023 - 6:36 AM

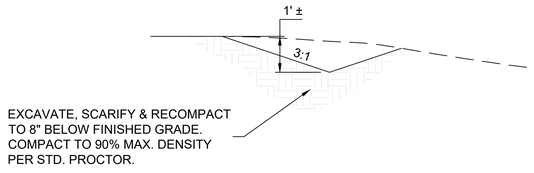


KEYED NOTES (#)

1. SCARIFY & RECOMPACT NATIVE MATERIAL PRIOR TO PLACING BASE COURSE. INSTALL NEW PAVEMENT SECTION (2.5" ASPHALTIC CONCRETE / 4" AGGREGATE BASE COURSE) PER PAVEMENT SECTION DETAIL 1, SHEETS D-101.
2. INSTALL STANDARD & ACCESSIBLE PARKING SPACE PER DETAILS 2, 3, & 4 SHEET D-101.
3. INSTALL CONCRETE VALLEY GUTTER PER DETAIL 1, SHEET D-103 AND PRIVATE ENTRANCE DETAIL 2, SHEET D-103.
4. INSTALL CONCRETE CURB AND GUTTER PER DETAIL 4, SHEET D-102.
5. INSTALL CONCRETE VERTICAL CURB PER DETAIL 4, SHEET D-102.
6. INSTALL CONCRETE SIDEWALK AT WIDTH SHOWN PER DETAIL 3, SHEET D-103.
7. INSTALL NEW TRASH ENCLOSURE WITH 6' HIGH SCREEN WALLS PER SOLID WASTE DETAILS,SEE SHEET C-301.
8. (2) MOTORCYCLE SPACES @ 4' X 8' EACH.
9. (3) BICYCLE SPACES IN 8' X 8' AREA.
10. INSTALL "STOP" SIGN PER DETAIL 5, SHEET D-101.
11. INSTALL PREMISE ID LOCATION PER CABQ FIRE.
12. INSTALL KNOX BOX PER CABQ FIRE.
13. INSTALL ACCESSIBLE RAMP PER DETAIL 4, SHEET D-103.
14. INSTALL 18" CMP, U/S INV. = 5379.00, D/S INV. = 5378.00. INSTALL END SECTIONS PER DETAIL 3 SHEET D-104.
15. RETAINING WALL; SEE SHEET S1.2, DETAIL 14 FOR CONCRETE & STRUCTURAL DETAIL & SHEET D-105, DETAIL SK-1 FOR GUARDRAIL DETAIL.
16. INSTALL PARALLEL CURB ACCESS RAMP PER DETAIL 4, SHEET D-103.
17. CONNECT SOUTH ROOF DRAIN TO SIDEWALK SCUPPER PER DETAIL 2, SHEET D-105 TO DRAIN ONTO PAVEMENT.
18. CONNECT NORTH ROOF DRAIN TO OUTLET ONTO 12"x36" PRECAST CONCRETE SPLASH BLOCK PER DETAIL 3, SHEET D-105. (MATERIALS INC, BERNALILLO NM OR APPROVED EQUAL)
19. PROVIDE UTILITY CONNECTION TRENCH REPAIRS ON ALAMEDA BLVD. PER DETAIL A, SHEET D-105. CONFIRM PAVEMENT SECTION & TRAFFIC CONTROL REQUIREMENTS WITH CABQ PRIOR TO CONSTRUCTION.
20. INSTALL 6' X 6', 12" THICK NON GROUTED RIPRAP PAD AT CULVERT INLET WITH FILTER FABRIC; D_{50}=9".
21. INSTALL 7.5' X 9', 12" THICK NON GROUTED RIPRAP PAD AT DETENTION BASIN WEIR OUTLET WITH FILTER FABRIC; D_{50}=9"



A OUTLET WEIR
N.T.S.



B DRAINAGE SWALE
N.T.S.

CABQ # BP-2022-39517

KENT A. DELPH
NEW MEXICO
13939
12-31-2022
REGISTERED PROFESSIONAL ENGINEER

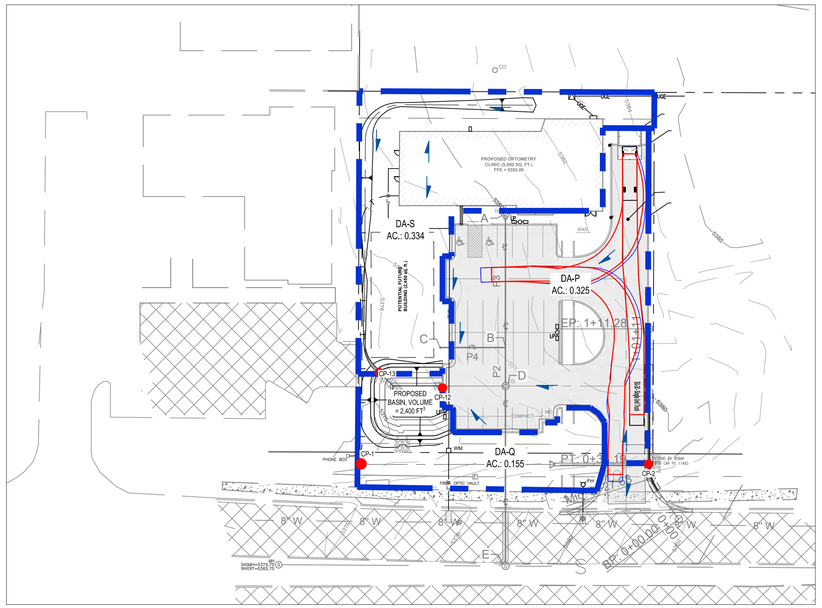
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

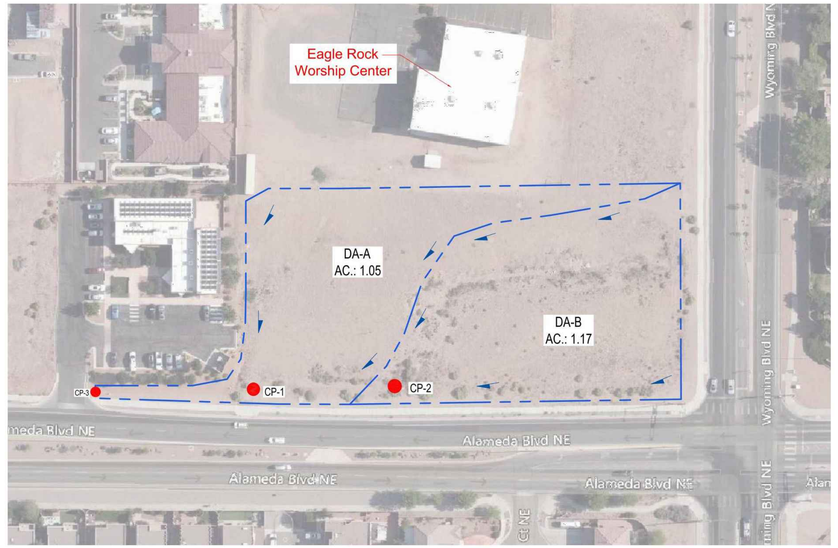
GRADING PLAN

C-102



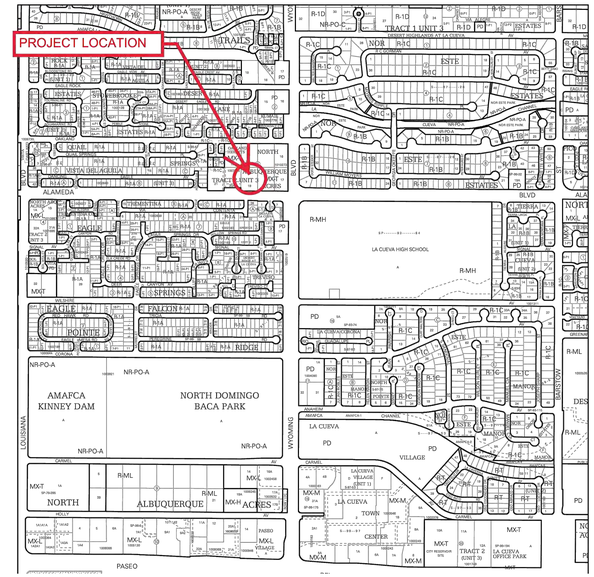
PROPOSED DRAINAGE

SCALE: 1" = 40'



EXISTING DRAINAGE

NOT TO SCALE



VICINITY MAP (ZONE ATLAS MAP No. C-19-Z)

7521 Alameda Boulevard NE, Albuquerque New Mexico 87113

NARRATIVE

LOCATION & DESCRIPTION

THE PROPOSED PROJECT IS LOCATED ON PARCEL AT 7521 ALAMEDA BOULEVARD NORTHEAST, ALBUQUERQUE NEW MEXICO ON LOT 19, BLOCK 3, TRACT 2, UNIT 3 NORTH ALBUQUERQUE ACRES SECTION 18, T 11 N, R 4 E. THE PROPOSED PROJECT INCLUDES CONSTRUCTION OF A NEW STRUCTURE (5,090 SQ FT^2) AND AN ADJOINING PAKRING LOT. FOR THE PURPOSE OF RETENTION BASIN DESIGN, A FUTURE SECOND STRUCTRURE (2,450 SQ FT^2) WAS CONSIDERED IN THE ANALYSIS.

EXISTING CONDITIONS

REGIONAL DRAINAGE IN THE AREA IS FROM NORTHEAST TO SOUTHWEST. A MINOR EXISTING FLOWPATH IMPACTS THE SOUTHEAST CORNER OF THE SITE (1.53 ACRES, Q100 = 4.86 CFS) AND OUTLETS WEST OF THE SITE ACROSS EXISTING DECOMPOSED GRANIT IN THE RIGHT-OF-WAY.

PROPOSED CONDITIONS

PROPOSED CONDITIONS INCLUDE A NEW CULVERT WITH A HEADWALL INTERGRATED IN THE RIGHT-OF WAY TO ALLOW EXISTING OFFSITE FLOWS TO OUTLET WEST TO MATCH EXISTING CONDITONS. ALL ONSITE FLOWS ARE ROUTED TO PROPOSED RETENTION BASIN.

FLOODPLAIN STATUS

THE PROPOSED PROJECT IS IN OUTSIDE OF A FEMEA FLOODPLAIN (ZONE X) AS PER FIRM MAP No. 35001C0141G.

HYDROLOGIC METHODOLOGY

HYDROLOGIC ANALYSIS WAS PERFORMED PER CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL FOR SMALL WATERSHEDS UNDER 40 ACRES. APPLICABLE LAND TREATMENT CLASSIFICATIONS AND PRECIPITATION VALUES WERE USED, SEE TABLE ON THIS SHEET.

HYDRAULIC METHODOLOGY

A STORMWATER RETENTION BASIN HAS BEEN PROVIDED AT THE SOUTHWEST CORNER OF THE SITE TO CONTAIN THE 100-YEAR INCREASE IN RUNOFF VOLUME OF 2,550 FT^2. THE BASIN VOLUME AT THE OUTLET WEIR IS 2,583 FT^2. THE OUTLET WEIR IS 3' WIDE WITH A FLOW DEPTH OF 0.50 FT. FOR THE Q100 = 2.72 CFS. THE VOLUME FOR THE POND WAS ANAYSED USING AUTOCAD CIVIL 3D STAGE STORAGE.

AN 18" DIAMETER CULVERT IS PROPOSED IN THE RIGHT OF WAY TO CONVEY THE EXISTING OFFSITE FLOW WEST. THE CULVERT DESIGN CONSIDERED THE 10 & 100-YEAR PEAK FLOWRATES & WAS ANALYZED USING FHWA HY-8 SOFTWARE:

Crossing Summary Table

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
79.82 Q2	2.59	2.59	0.00	1
80.21 Q100	4.86	4.86	0.00	1
82.00	11.34	11.34	0.00	Overtopping

FIRST FLUSH

A STORMWATER RETENTION BASIN IS PROSOSED AT THE SOUTHWEST CORNER OF THE SITE THAT WILL HAVE A VOLUME OF 2,583 FT^3 TO ACCOMODATE THE MINOR INCREASE IN 100-YR STORM VOLUMES AND THE REQUIRED FIRST FLUSH VOLUME. THE FIRST FLUSH VOLUME WAS CALCULATED USING THE 80TH STORM PERCENTILE RUNOFF OF 0.23" ON THE NEW ROOF FOR THE PROPSED STRUCTURE AND POTENTIAL SECONDAERY STRUCTURE, WITH ASSOCIATED PAVING AND SIDEWALK. THE REQUIRED FIRST FLUSH VOLUME IS 365 FT^3; CALCULATED FOLLOWING:

- ROOF AREA (PROPOSED AND SECONDARY FUTURE) = 8,282 FT^2
- ASPHALT & CONCRETE AREA = 13,028 FT^2
- REQUIRED FIRST FLUSH VOLUME = 21,310 FT^2 * (0.26 INCHES/12 INCHES) = 462 FT^3
- PROVIDED FIRST FLUSH VOLUME = 462 FT^3

EROSION CONTROL NOTES

1. THE AREA OF DISTURBANCE FOR THE PROJECT IS ESTIMATED AT 0.88 ACRES. THIS AREA IS LESS THAN 1.00 ACRES, WHICH WOULD NOT REQUIRE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

HYDROLOGIC DATA

Precision Eye — **Delph Engineering** — **Job No. 21-45**

100-YR STORM RAINFALL DEPTHS

$P_{1\text{-HR}}$ (in)	$P_{6\text{-HR}}$ (in)	$P_{24\text{-HR}}$ (in)	$P_{4\text{-DAY}}$ (in)	$P_{10\text{-DAY}}$ (in)
1.84	2.43	2.75	2.84	4.1

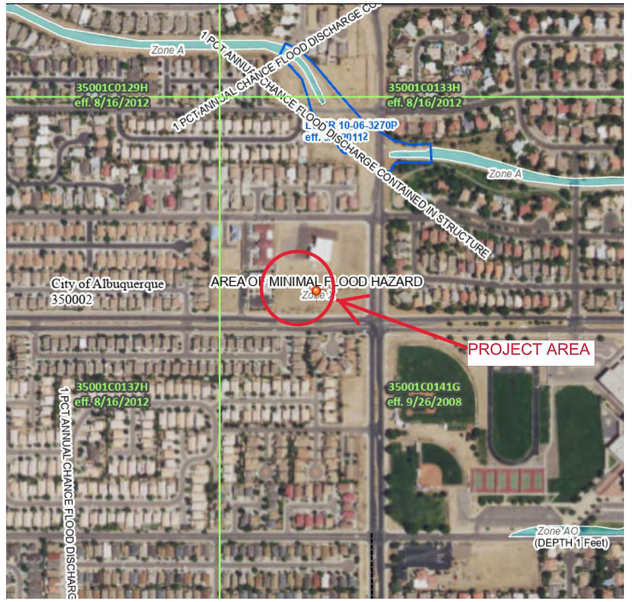
PEAK DISCHARGE FACTORS

Land Treatment C		Land Treatment D	
$q_{10\text{-YR}}$ (cfs/ac)	$q_{100\text{-YR}}$ (cfs/ac)	$q_{10\text{-YR}}$ (cfs/ac)	$q_{100\text{-YR}}$ (cfs/ac)
1.69	3.17	2.81	4.49

Precipitation Zone 3:	100-YR Storm:	$P_{6\text{-HR}}$:	2.43	$P_{24\text{-HR}}$:	2.84	10-YR Storm:	$P_{6\text{-HR}}$:	1.57	$P_{24\text{-HR}}$:	1.90		EXISTING AND PROPOSED RUNOFF VOLUMES		EXISTING AND PROPOSED PEAK FLOWRATES	
DRAINAGE AREA	AREA (ac)	LAND TREATMENT AREA BY TYPE A (ac)	B (ac)	C (ac)	D (ac)	EXCESSIVE PRECIP. (E) BY LAND TREATMENT $E_{C\text{-10-YR}}$ (in.)	$E_{C\text{-100-YR}}$ (in.)	$E_{D\text{-10-YR}}$ (in.)	$E_{D\text{-100-YR}}$ (in.)	$E_{W,10\text{-YR}}$ (in.)	$E_{W,100\text{-YR}}$ (in)	V_{10} (ac-ft)	V_{100} (ac-ft)	Q_{10} (cfs)	Q_{100} (cfs)
Existing On & Off Site:															
CP-1	2.32	0.00	0.00	2.3227	0.00	0.52	1.09	1.64	2.58	0.52	1.09			3.93	7.36
CP-2	1.53	0.00	0.00	1.53	0.00	0.52	1.09	1.64	2.58	0.52	1.09			2.59	4.86
CP-3	2.43	0.00	0.00	2.43	0.00	0.52	1.09	1.64	2.58	0.52	1.09			4.11	7.71
Without Development:															
CP-12	0.33	0.00	0.00	0.33	0.00	0.52	1.09	1.64	2.58	0.52	1.10	0.01	0.03	0.56	1.05
CP-13	0.33	0.00	0.00	0.33	0.00	0.52	1.09	1.64	2.58	0.51	1.08	0.01	0.03	0.56	1.05
									Total Volume for Existing Site (CPs 12 & 13):			0.03	0.06	1.12	2.09
Proposed:															
With One Building															
CP-12	0.33	0.00	0.00	0.06	0.27	0.52	1.09	1.64	2.58	1.44	2.32	0.04	0.06	0.86	1.40
CP-13	0.33	0.00	0.00	0.21	0.12	0.52	1.09	1.64	2.58	0.92	1.63	0.03	0.05	0.70	1.22
									Total Volume for Site with One Buidling:			0.07	0.11	1.56	2.61
With Two Buildings															
CP-12	0.33	0.00	0.00	0.06	0.27	0.52	1.09	1.64	2.58	1.44	2.32	0.04	0.06	0.86	1.40
CP-13	0.33	0.00	0.00	0.13	0.20	0.52	1.09	1.64	2.58	1.19	1.98	0.03	0.06	0.79	1.32
									Total Volume for Site with Two Buidlings:			0.07	0.12	1.65	2.72

INCREASE DUE TO DEVELOPMENT WITHOUT STORMWATER BASIN (CPS 12 & 13): 0.53 0.63

	Vol (cubic Feet
Basin Volume for Proposed One New Bulding	**2,117**
Basin Volume for Proposed Two New Buildings	**2,550**



FIRMETTE No. 35001C0141G 9/26/2008

CABQ # BP-2022-39517

3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

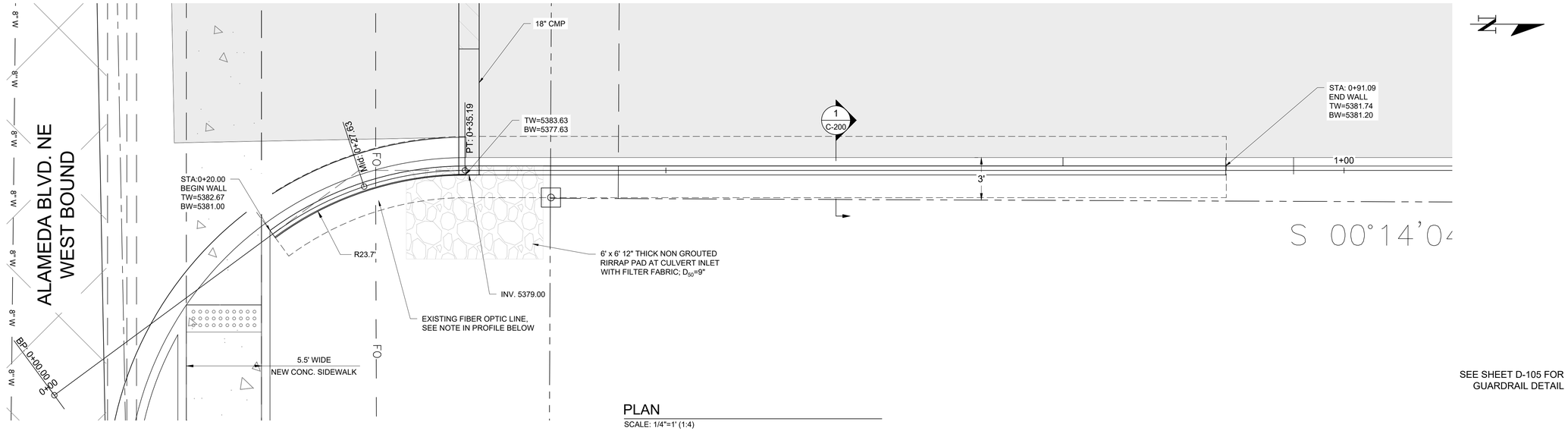
PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

DRAINAGE PLAN

C103

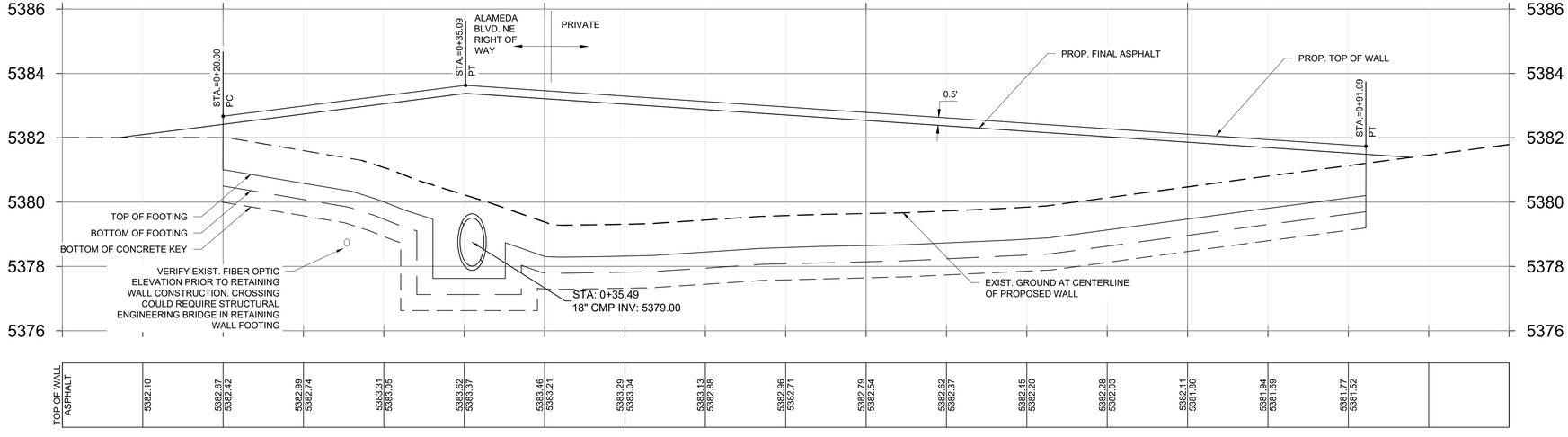
C:\Projects\21-45 - Precision Eye\DWG_Civil_Sheets-Plans_Drainage.dwg 02/28/2023 - 7:05 AM



PLAN

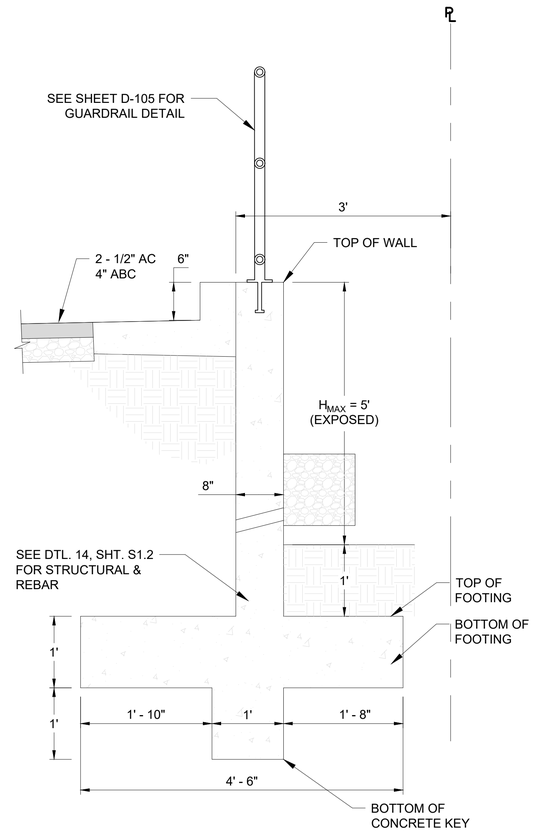
SCALE: 1/4"=1' (1:4)

WALL PROFILE



PROFILE

SCALE: HORIZ. 1"=4' VERT. 1"=2'



1 WALL DETAIL

SCALE: 1" = 1'

CABQ # BP-2022-39517

KENT A. DELPHEY
NEW MEXICO
13939
REGISTERED PROFESSIONAL ENGINEER
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER

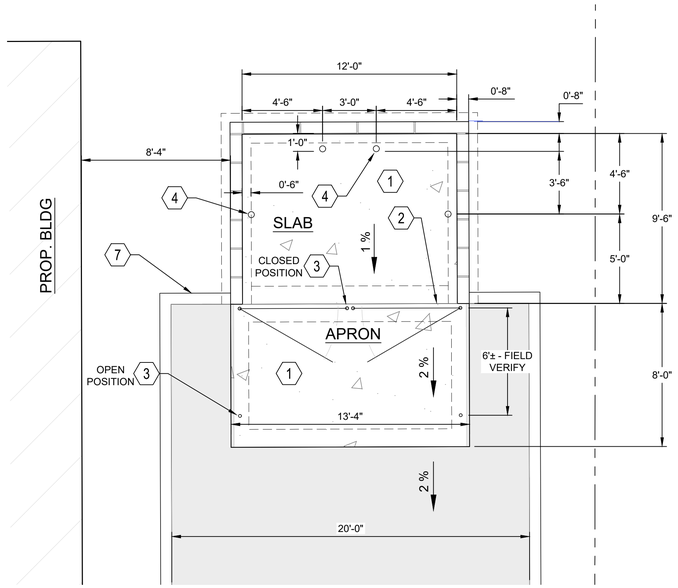
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE

ALBUQUERQUE, NM 87113

WALL PLAN & PROFILE

C-201

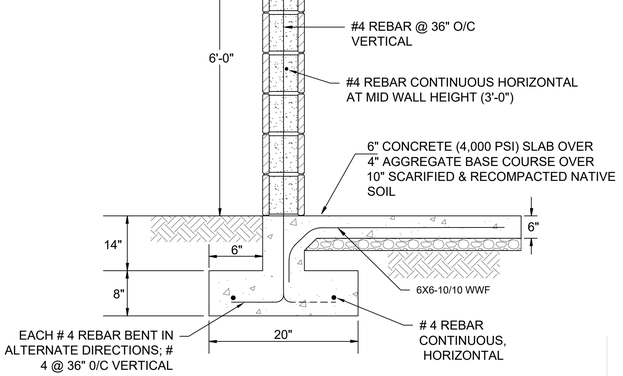


1 TRASH ENCLOSURE DETAIL

1" = 4'

KEY NOTES - TRASH ENCLOSURE

1. CONCRETE SLAB & APRON TO BE 6" THICK WITH 6" X 6" WELDED WIRE MESH. BOTH SHALL BE PLACED OVER 4" AGGREGATE BASE COURSE OVER 10" OF SCARIFIED AND RECOMPACTED NATIVE MATERIAL. CONCRETE FOR SLAB & APRON SHALL BE 4,000 PSI WITH $\frac{4}{3}$" AGGREGATE.
2. PROVIDE $\frac{1}{2}$" EXPANSION JOINT BETWEEN SLAB & APRON & BETWEEN CMU WALL AND SLAB.
3. DRILL HOLES IN IN THE GATE OPEN & CLOSED POSITION, VERIFY LOCATION WITH GATE HARDWARE PRIOR DRILLING. (4 TOTAL).
4. BOLLARD: PROVIDE 6' LONG 6" DIAMETER STEEL PIPE FILLED WITH CONCRETE, VERTICALLY LOCATED 4' ABOVE THE SLAB & 2' BELOW TOP OF SLAB. PROVIDE CONCRETE AROUND LOWER 1.5' OF BOLLARDS, 12" BELOW & AROUND STEEL PIPE. CONCRETE FOR BOLLARD INFILL AND SUBGRADE SURROUNDING 12" SHALL HAVE A MINIMUM STRENGTH OF 2,500 PSI. (4 TOTAL).
5. 12" X 12" THICKENED EDGE, ALL FOUR SIDES OF APRON & SOUTH SIDE OF SLAB.
6. 2 EA ENCLOSURE GATES FRAME TO BE CONSTRUCTED OF 3"x3"x$\frac{3}{16}$" SQUARE STEEL TUBING W/ INTER CROSS-BRACE AND $\frac{3}{8}$" STEEL PLATE SURFACE WELDED ON BOTH SIDES.
7. INSTALL CONCRETE VERTICAL CURB PER DETAIL 4, SHEET D-102.

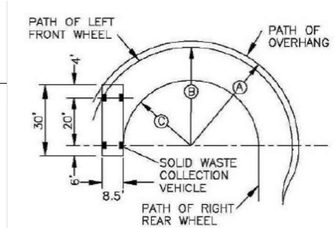


2 SCREEN WALL & FOOTING DETAIL

NOT TO SCALE

NOTES - SCREEN WALL

1. FOOTING TO BE PLACED ON 10" DEPTH SCARIFIED & RECOMPACTED NATIVE SOIL WITH A MIN. OF 95% OF MAX DENSITY PER STANDARD PROCTOR.
2. ALL CELLS CONTAINING REBAR SHALL BE SOLID GROUTED (VERTICAL & HORIZONTAL REINFORCEMENT). CELLS NOT CONTAINING REBAR SHALL NOT BE GROUTED
3. REBAR: ASTM STANDARD A615M GRADE 40 OR 60
4. 8" CMU TO BE fm = 1350 psi
5. ACCEPTABLE WALL MATERIALS INCLUDE BUT ARE NOT LIMITED TO, WOOD OR STUCCO OVER CMU OR OTHER STRUCTURAL MATERIALS
6. WALL COLOR SHALL BE OPAQUE, EARTH TONE OR MATCH THE NEW BUILDING
7. GROUT: ASTM TYPE S fm = 1800 psi



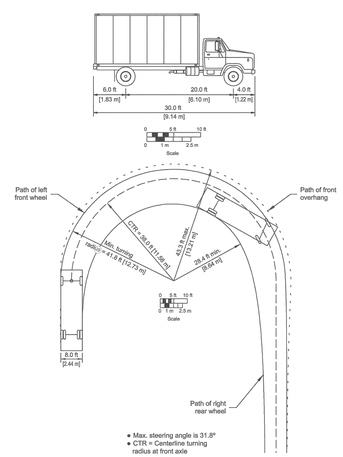
A 45' Minimum Turning Radius

B 42' Turning Radius

C 30' Turning Radius

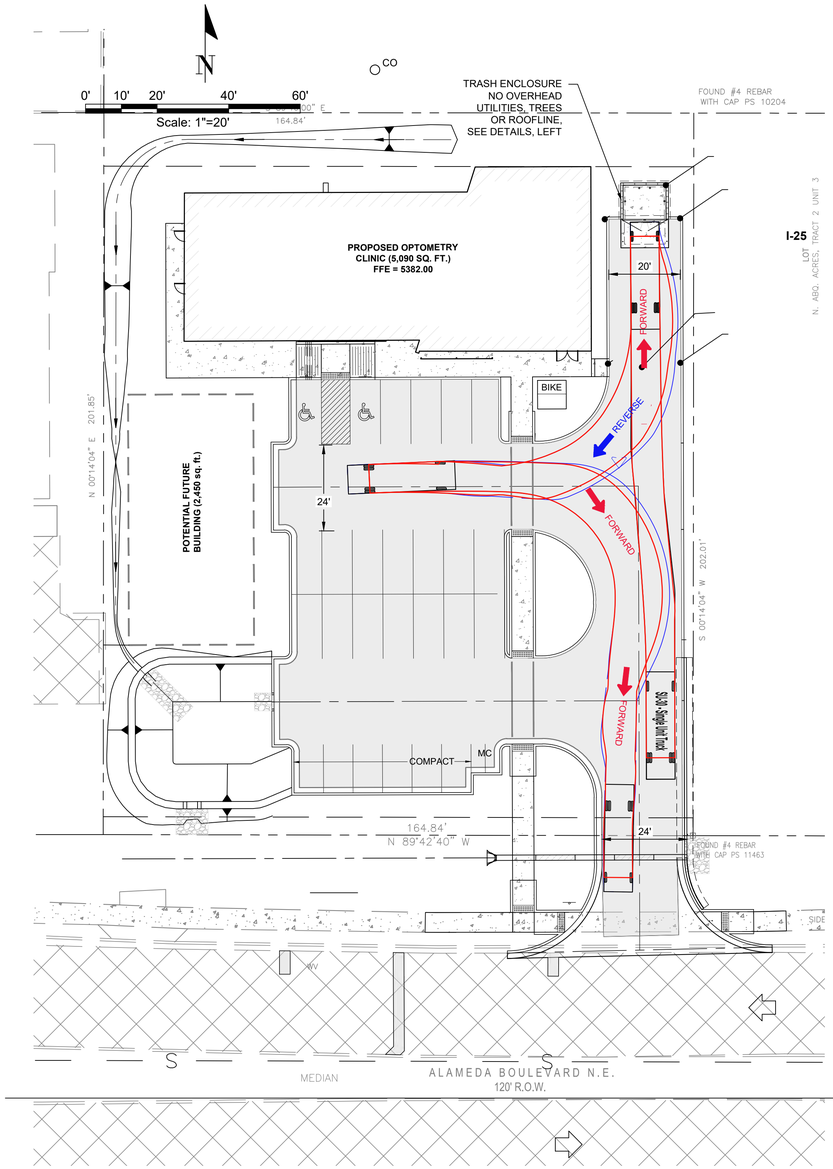
3 FRONT LOAD GARBAGE TRUCK

TYPICAL TURNING MOVEMENTS, LENGTH APPROX.,



4 AASHTO SU-TURNING MOVEMENTS

VEHICLE SHOWN IN CIVIL 3D VEHICLE TRACKING APPLICATION



SOLID WASTE ACCESS PLAN

SCALE: 1"=20'

SOLID WASTE DEPARTMENT - ACCESS APPROVAL
CITY OF ALBUQUERQUE

PRINTED NAME TITLE

SIGNATURE DATE

CABQ # BP-2022-39517

KENT A. DELPH NEW MEXICO 13939 REGISTERED PROFESSIONAL ENGINEER 2-28-2023

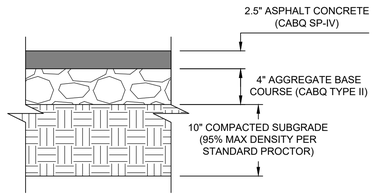
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

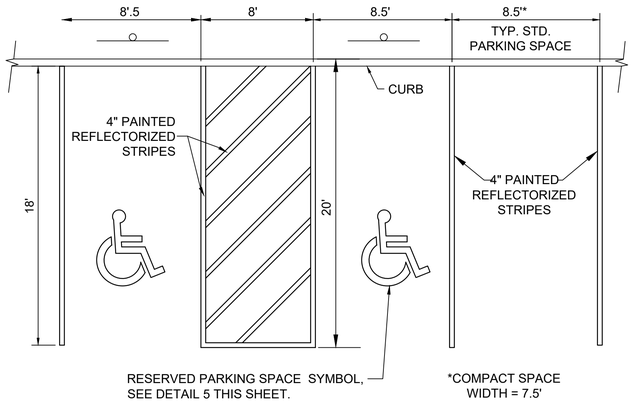
7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

TRASH ENCOLOSURE, ACCESS & DETAILS

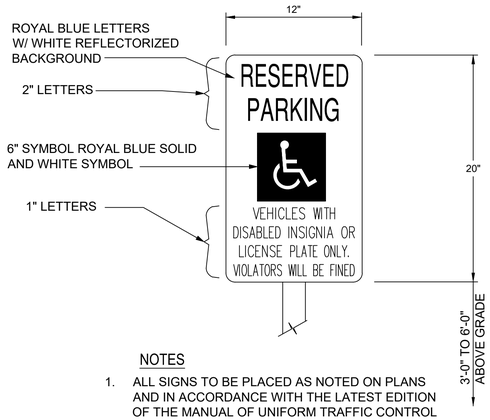
C-301



1 PAVEMENT SECTION
N.T.S.



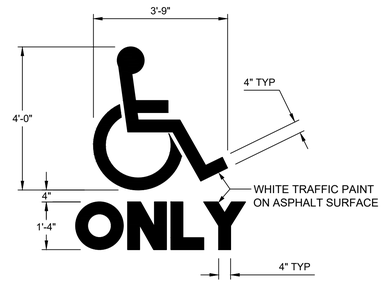
2 STANDARD & ACCESSIBLE PARKING SPACE
N.T.S.



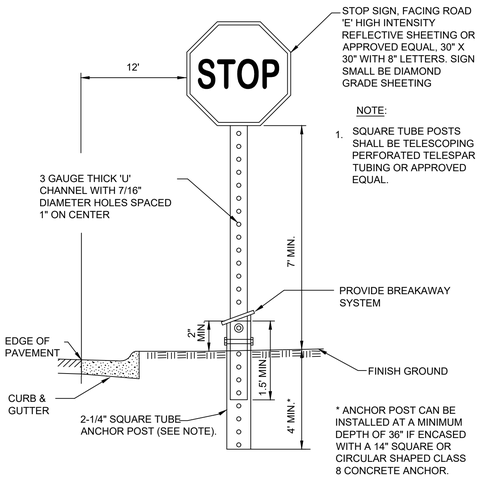
NOTES

1. ALL SIGNS TO BE PLACED AS NOTED ON PLANS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

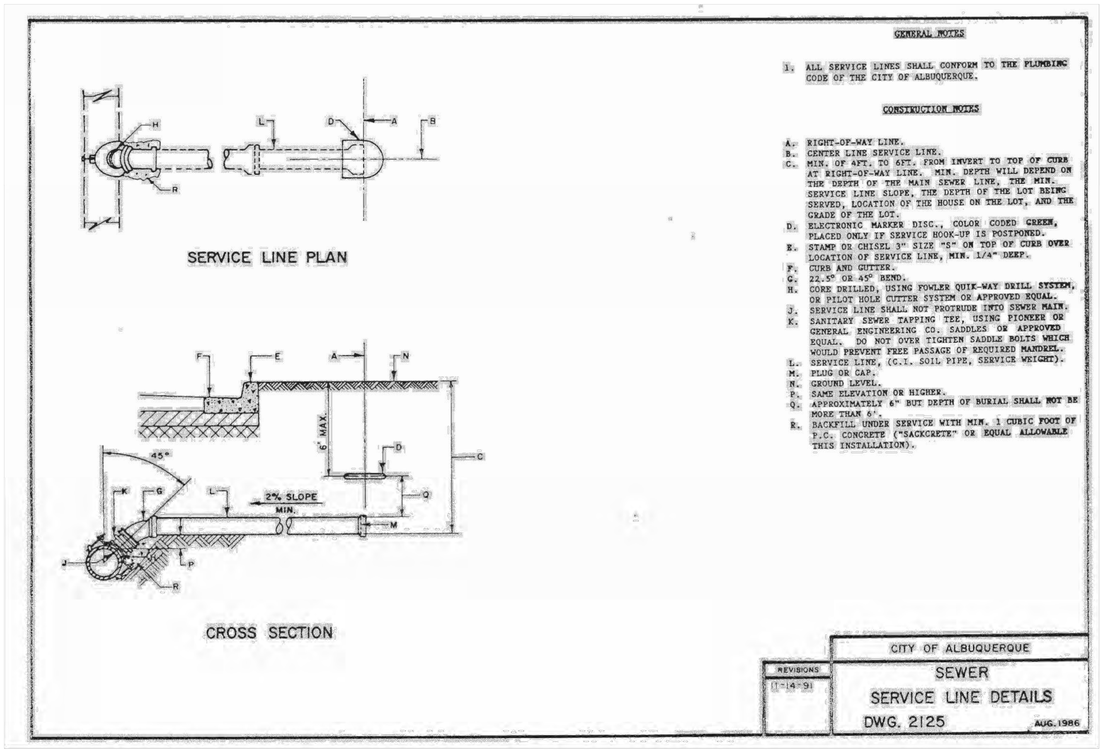
3 ACCESSIBLE PARKING SIGN
N.T.S.



4 RESERVED PARKING SPACE SYMBOL
N.T.S.



5 STOP SIGN
N.T.S.



6 SEWER SERVICE LINE DETAILS - (CABQ - 2125)
N.T.S.

CABQ # BP-2022-39517

KENT A. DELPHEY
NEW MEXICO
13939
2-28-2024
REGISTERED PROFESSIONAL ENGINEER

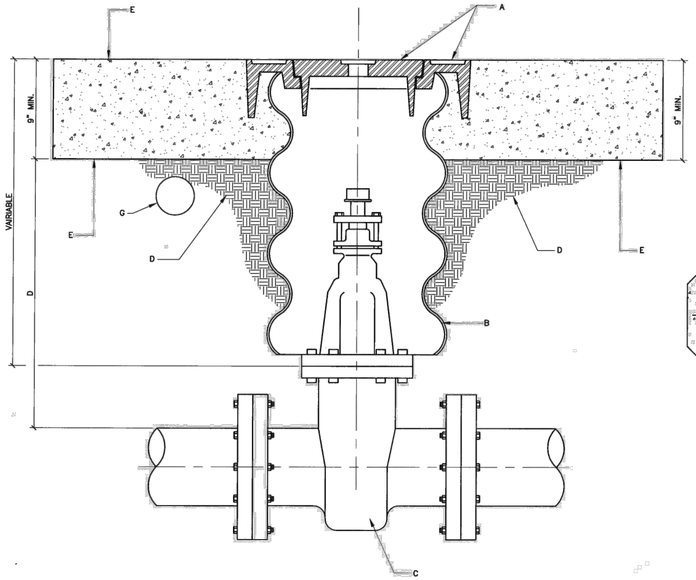
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

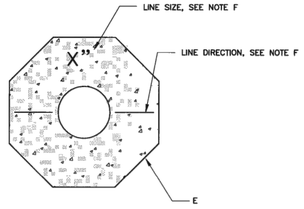
PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

CIVIL DETAILS

D-101





GENERAL NOTES:

A VALVE BOX RING AND COVER PER C.O.A. STD. DWG. 2328.

B 12" DIAMETER POLYMER COATED STEEL PIPE CMP.

C NEW OR EXISTING VALVE.

D COMPACTED BACKFILL. SOIL OR BASE COURSE MATERIAL (95% COMPACTION). SEE SECTION 701.

E CONCRETE COLLAR PER COA STANDARD DRAWING 2461. f'c = 4000 psi.

F TOP OF CONCRETE COLLAR SHALL BE STAMPED WITH LINE SIZE AND DIRECTION. MINIMUM LETTER SIZE SHALL BE 3" IN HEIGHT. INSTALL FIRE LINE RING AND COVER ON FIRE LINES PER COA STANDARD DRAWING 2329.

G ELECTRONIC MARKER DEVICE (EMD), SEE COA STANDARD SPECIFICATION SECTION 170.

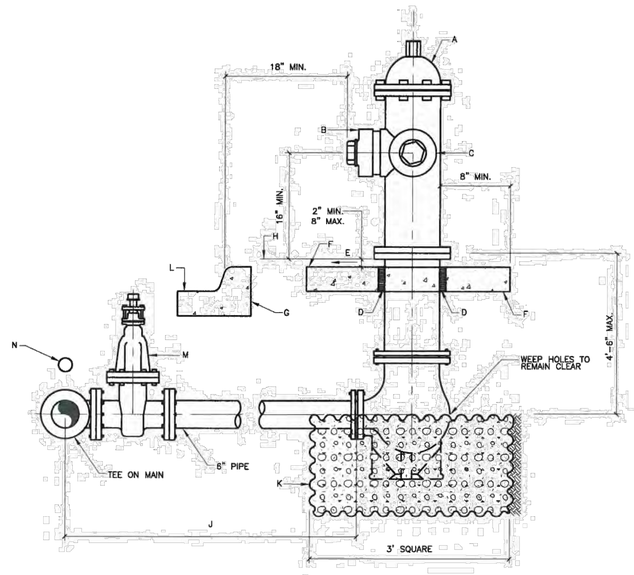
LABEL REQUIREMENTS

GENERAL NOTES:

1. BEFORE THE WORK WILL BE ACCEPTED, WATER VALVE GPS COORDINATES SHALL BE PROVIDED ON THE RECORD DRAWINGS. GPS COORDINATES OBTAINED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF NEW MEXICO SHALL BE TAKEN AT THE VALVE OPERATING NUT. USE THE NAD 1983 NM STATE PLANE CENTRAL ZONE FOR X AND Y COORDINATES AND NAVD 1988 FOR Z COORDINATE.

REVISIONS	WATER AUTHORITY
	WATER VALVE BOX DWG. 2326 JANUARY 2011

1 VALVE BOX - (CABQ - 2326)
N.T.S.



GENERAL NOTES:

1 NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 3'-0" OF FIRE HYDRANT.

2 HYDRANT LEG SHALL BE VALVED.

3 CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF FIRE HYDRANT TO THE CONTROLLED ELEVATION LINE.

4 FOR FIRE HYDRANT LOCATIONS, SEE DWG. 2347.

5 WHEN NEW OR EXISTING SIDEWALK ABUTS CURB, RECONSTRUCT SIDEWALK PER DWG. 2430, 2431.

6 PUMPER NOZZLE TO BE SET FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED ON PLANS.

7 HYDRANTS INSTALLED IN SIDEWALK AREAS SHALL MAINTAIN A MIN. 36-INCH CLEAR PEDESTRIAN PATH PER ADA STANDARD.

8 BEFORE THE WORK WILL BE ACCEPTED, FIRE HYDRANT GPS COORDINATES SHALL BE PROVIDED ON THE RECORD DRAWINGS. GPS COORDINATES OBTAINED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF NEW MEXICO SHALL BE TAKEN AT THE FLANGE. USE THE NAD 1983 NM STATE PLANE CENTRAL ZONE FOR X AND Y COORDINATES AND NAVD 1988 FOR Z COORDINATE.

CONSTRUCTION NOTES:

A FIRE HYDRANT PER SPECIFICATIONS.

B PUMPER NOZZLE 4 1/2".

C HOSE NOZZLE 2 1/2".

D 1/2" EXPANSION JOINT MATERIAL.

E MATCH SIDEWALK SLOPE OR SLOPE 1/4" PER FOOT.

F 3'x3'x6" CONCRETE SQUARE PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONCRETE AREA. CONCRETE PER SEC. 101 EXTERIOR CONCRETE, f'c=3000 psi @ 28 DAYS.

G BACK OF CURB.

H CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS.

J USE OF RESTRAINED JOINTS IS MANDATORY. ALL FIRE HYDRANT LEG PIPING AND FITTINGS INCLUDING TEE ON MAIN SHALL BE RESTRAINED JOINT.

K GRAVEL DRAIN POCKET. USE FILTER FABRIC TO COVER AROUND GRAVEL DRAIN POCKET. ASTM C33, NO.57 GRAVEL.

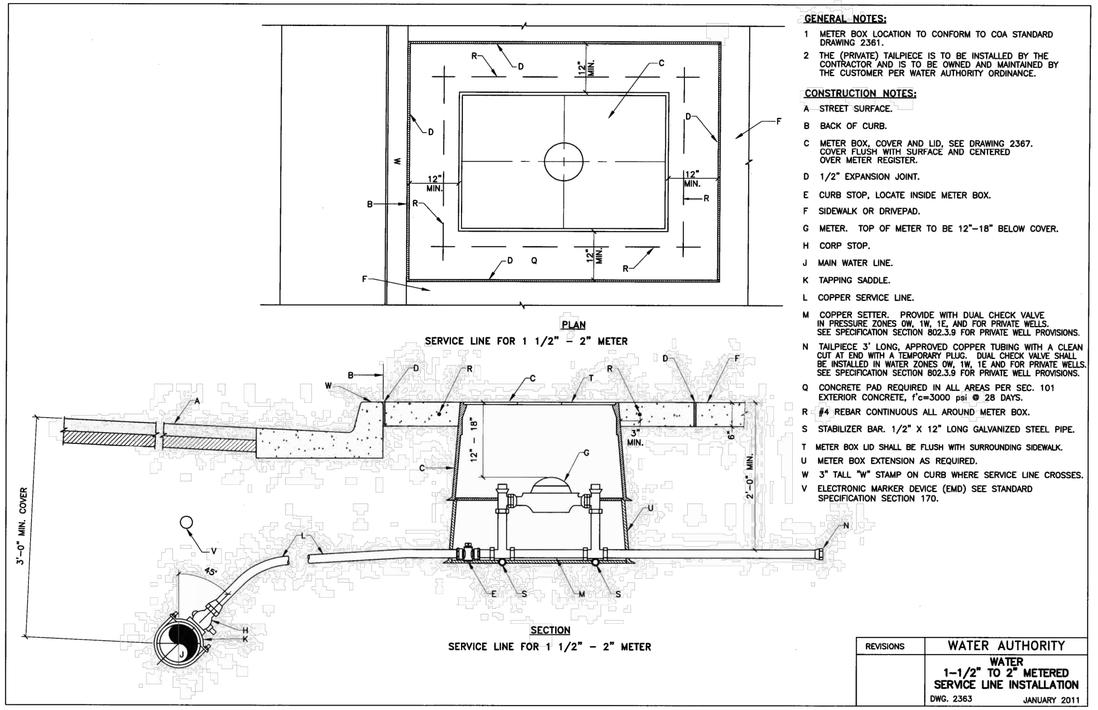
L CURB AND GUTTER. WHERE NO CURB AND GUTTER EXIST, BOLLARDS ARE REQUIRED.

M FIRE HYDRANT ISOLATION VALVE.

N ELECTRONIC MARKER DEVICE (EMD), SEE COA STANDARD SPECIFICATION SECTION 170.

REVISIONS	WATER AUTHORITY
	WATER FIRE HYDRANT INSTALLATION DWG. 2340 JANUARY 2011

2 FIRE HYDRANT INSTALLATION - (CABQ 2340)
N.T.S.



GENERAL NOTES:

1 METER BOX LOCATION TO CONFORM TO COA STANDARD DRAWING 2361.

2 THE (PRIVATE) TAILPIECE IS TO BE INSTALLED BY THE CONTRACTOR AND IS TO BE OWNED AND MAINTAINED BY THE CUSTOMER PER WATER AUTHORITY ORDINANCE.

CONSTRUCTION NOTES:

A STREET SURFACE.

B BACK OF CURB.

C METER BOX, COVER AND LID, SEE DRAWING 2367. COVER FLUSH WITH SURFACE AND CENTERED OVER METER REGISTER.

D 1/2" EXPANSION JOINT.

E CURB STOP, LOCATE INSIDE METER BOX.

F SIDEWALK OR DRIVEPAD.

G METER. TOP OF METER TO BE 12"-18" BELOW COVER.

H CORP STOP.

J MAIN WATER LINE.

K TAPPING SADDLE.

L COPPER SERVICE LINE.

M COPPER SETTER. PROVIDE WITH DUAL CHECK VALVE IN PRESSURE ZONES 0W, 1W, 1E, AND FOR PRIVATE WELLS. SEE SPECIFICATION SECTION 802.3.9 FOR PRIVATE WELL PROVISIONS.

N TAILPIECE 3' LONG, APPROVED COPPER TUBING WITH A CLEAN CUT AT END WITH A TEMPORARY PLUG. DUAL CHECK VALVE SHALL BE INSTALLED IN WATER ZONES 0W, 1W, 1E AND FOR PRIVATE WELLS. SEE SPECIFICATION SECTION 802.3.9 FOR PRIVATE WELL PROVISIONS.

Q CONCRETE PAD REQUIRED IN ALL AREAS PER SEC. 101 EXTERIOR CONCRETE, f'c=3000 psi @ 28 DAYS.

R #4 REBAR CONTINUOUS ALL AROUND METER BOX.

S STABILIZER BAR. 1/2" X 12" LONG GALVANIZED STEEL PIPE.

T METER BOX LID SHALL BE FLUSH WITH SURROUNDING SIDEWALK.

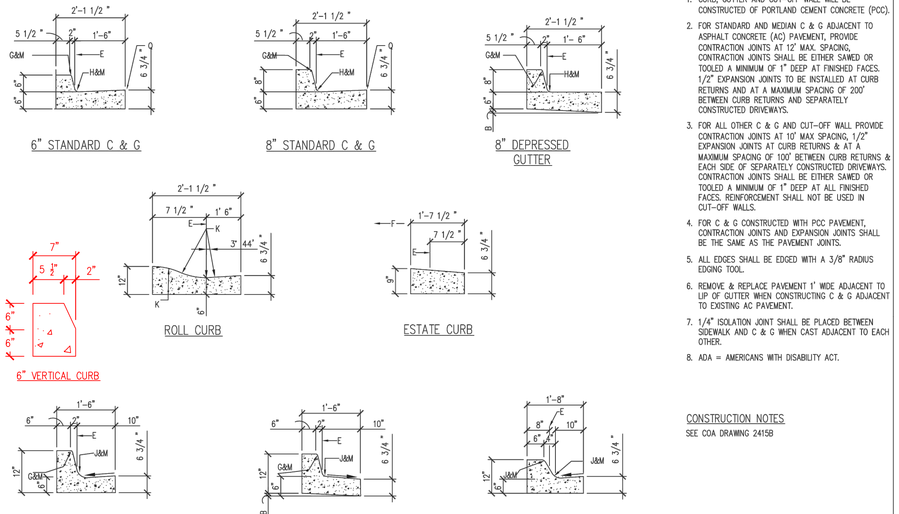
U METER BOX EXTENSION AS REQUIRED.

W 3" TALL "W" STAMP ON CURB WHERE SERVICE LINE CROSSES.

V ELECTRONIC MARKER DEVICE (EMD) SEE STANDARD SPECIFICATION SECTION 170.

REVISIONS	WATER AUTHORITY
	WATER 1-1/2" TO 2" METERED SERVICE LINE INSTALLATION DWG. 2363 JANUARY 2011

3 1-1/2" TO 2" METERED SERVICE LINE - (CABQ 2363)
N.T.S.



GENERAL NOTES

1. CURB, GUTTER AND CUT-OFF WALL WILL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE (PCC).
2. FOR STANDARD AND MEDIAN C & G ADJACENT TO ASPHALT CONCRETE (AC) PAVEMENT, PROVIDE CONTRACTION JOINTS AT 12' MAX. SPACING, CONTRACTION JOINTS SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT FINISHED FACES. 1/2" EXPANSION JOINTS TO BE INSTALLED AT CURB RETURNS AND AT A MAXIMUM SPACING OF 200' BETWEEN CURB RETURNS AND SEPARATELY CONSTRUCTED DRIVEWAYS.
3. FOR ALL OTHER C & G AND CUT-OFF WALL PROVIDE CONTRACTION JOINTS AT 10' MAX SPACING, 1/2" EXPANSION JOINTS AT CURB RETURNS & AT A MAXIMUM SPACING OF 100' BETWEEN CURB RETURNS & EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JOINTS SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT ALL FINISHED FACES. REINFORCEMENT SHALL NOT BE USED IN CUT-OFF WALLS.
4. FOR C & G CONSTRUCTED WITH PCC PAVEMENT, CONTRACTION JOINTS AND EXPANSION JOINTS SHALL BE THE SAME AS THE PAVEMENT JOINTS.
5. ALL EDGES SHALL BE EDGED WITH A 3/8" RADIUS EDGING TOOL.
6. REMOVE & REPLACE PAVEMENT 1' WIDE ADJACENT TO LIP OF GUTTER WHEN CONSTRUCTING C & G ADJACENT TO EXISTING AC PAVEMENT.
7. 1/4" ISOLATION JOINT SHALL BE PLACED BETWEEN SIDEWALK AND C & G WHEN CAST ADJACENT TO EACH OTHER.
8. ADA = AMERICANS WITH DISABILITY ACT.

CONSTRUCTION NOTES

SEE COA DRAWING 2415B

REVISIONS	CITY OF ALBUQUERQUE
	PAVING CURB AND GUTTER DETAILS DWG. 2415A JUNE 2019

4 CURB AND GUTTER DETAILS
N.T.S.

CABQ # BP-2022-39517

KENT A. DELPH NEW MEXICO 13939 REGISTERED PROFESSIONAL ENGINEER 2.22.23

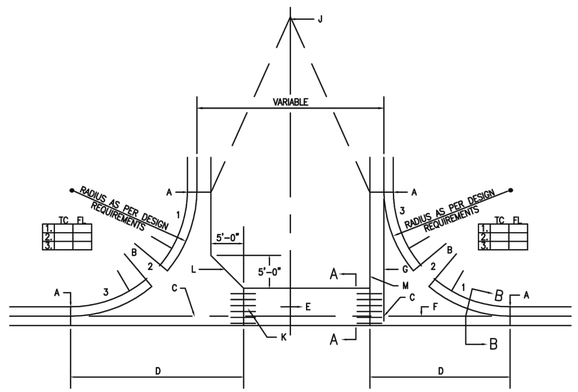
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

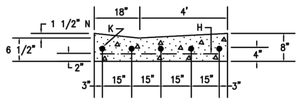
7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

CIVIL DETAILS

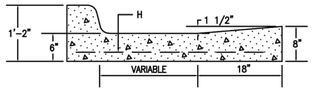
D-102



PLAN



SECTION A–A



SECTION B–B

1 CONCRETE VALLEY GUTTER - (CABQ 2420)

N.T.S.

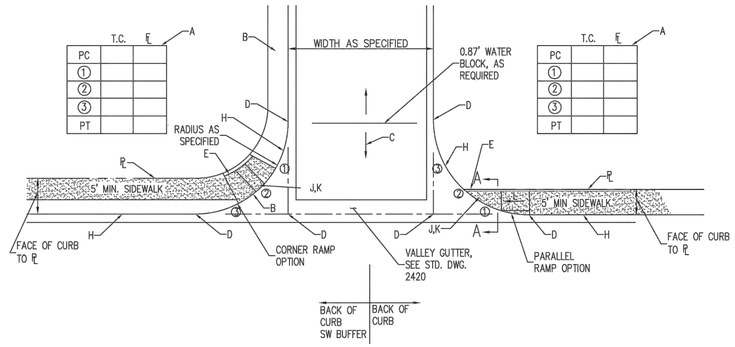
GENERAL NOTES

1. DESIGN ELEVATIONS TO BE GIVEN AT EACH END OF THE CURB RETURN (TOP OF CURBELEV.) AND AT INTERSECTIONS OF PROJECTED FLOWLINES (FLOWLINE ELEV.).
2. ON UPSTREAM AND DOWNSTREAM ENDS OF THE INTERSECTION, VALLEY GUTTER CONSTRUCTION SHALL EXTEND TO THE END OF RETURNS.
3. THE VALLEY GUTTER TO BE REINFORCED WITH 6" X 6" X NO. 6 GA. WIRE MESH.
4. INVERT OF VALLEY GUTTER TO EXTEND FROM FLOWLINE OF UPSTREAM CURB RETURN TO FLOWLINE OF DOWNSTREAM CURB RETURN.
5. CURB FLOWLINE AND TOP OF CURB ELEV.SHOWN IN THE BOX CORRESPOND TO QUARTERPOINTS INDICATED ON THE CURB RETURN IN THE CLOCKWISE DIRECTION.
6. DENOTES 1/2" EXPANSION JOINT.
7. FOR NEW CONSTRUCTION, VALLEY GUTTER SHALL BE CONSTRUCTED PRIOR TO ADJACENT PAVEMENT. ASPHALT CONC. SHALL BE INSTALLED MONOLITHICALLY TO MEET NEW VALLEY GUTTER.
8. PRIOR TO CONSTRUCTION OF NEW VALLEY GUTTER ON EXISTING ACCEPTED STREETS, PAVEMENT SHALL BE REMOVED AS SHOWN ON PLANS.
9. ENSURE MINIMUM 4' WIDE ADA PATHWAY ACROSS INTERSECTION.

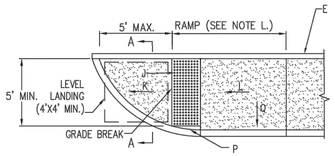
CONSTRUCTION NOTES

A. END OF CURB RETURN, SEE NOTE 1.
B. FOR RAMP DETAILS, SEE DWGS. 2418, 2440, 2441
C. INTERSECTION OF FLOWLINES, SEE NOTE 1.
D. SURFACE AND CURB TO BE MONOLITHIC.
E. DIRECTION OF FLOW.
F. FLOWLINE.
G. PROJECTED FLOWLINE OF 1 1/2" INVERT, SEE NOTE 2.
H. BEGIN CROWN WARP TO STRAIGHT SECTION WHERE
J. BEGIN CROWN WARP TO STRAIGHT SECTION WHERE SPECIFIED ON PLANS, OR INDICATED BY THE ENGR.
K. NO. 4 BARS 3'-0" LONG AT 16" O.C.
L. ALTERNATE A, WITH FILLET AS PER PLANS.
M. ALTERNATE B, NO FILLET AS PER PLANS.
N. THE 1 1/2" INVERT DEPTH MAY BE REDUCED TO IMPROVE RIDEABILITY WITH APPROVAL OF ENGINEER.

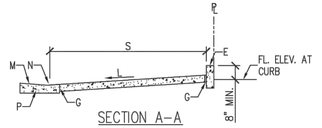
REVISIONS	CITY OF ALBUQUERQUE
	PAVING
	CONCRETE VALLEY GUTTER
	DWG. 2420 JUNE 2019



PRIVATE ENTRANCE



MINIMAL R.O.W. FOR SIDEWALK AT BACK OF CURB PARALLEL RAMP



SECTION A–A

2 PRIVATE ENTRANCE DETAILS - (CABQ 2426)

N.T.S.

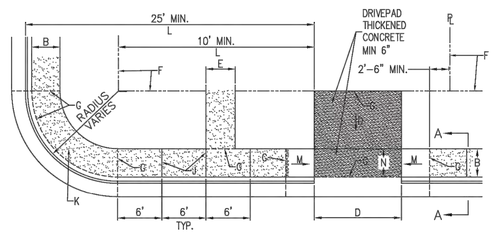
GENERAL NOTES

1. THESE DETAILS ARE PROVIDED FOR HIGH TRAFFIC VOLUME PRIVATE ENTRANCES SUCH AS ENTRANCES TO COMMERCIAL SITES, IN LIEU OF STANDARD DRIVE PAD PER CHAPTER 7 OF THE DEVELOPMENT PROCESS MANUAL.
2. SEE STD. DWGS. 2441 TO 2445 FOR ALTERNATE CURB ACCESS RAMP DETAILS. SEE DETAIL 2446 FOR DETECTABLE WARNING DEVICE DETAILS.

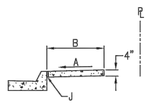
CONSTRUCTION NOTES

A. INCLUDE QUARTER POINT ELEVATIONS. SEE STD. DETAIL DWG. 2420. SEE LOCATION FOR QUARTER POINTS ON PLAN VIEW BELOW.
B. WHERE INTERIOR SIDEWALK CONNECTION IS TO BE PROVIDED – CONSTRUCT CURB ACCESS RAMPS PER STD. DETAIL DWGS. 2440 – 2445.
C. INITIAL GRADE TO BE 4% OR LESS WHEN CONNECTING TO COLLECTOR OR ARTERIAL STREETS. 6% OR LESS WHEN CONNECTING TO LOCAL STREETS. INCLUDE A 4–FOOT WIDE ADA ACCESSIBLE PATHWAY ACROSS ENTIRE WIDTH OF PRIVATE ENTRANCE.
D. INCLUDE ELEVATIONS AT EACH END OF CURB RETURN AND INTERSECTIONS OF PROJECTED FLOWLINES. SEE STD. DWG. 2420.
E. AT PROPERTY LINE, CONSTRUCT HEADER CURB. SEE STD. DWG. 2415B AND SECTION A–A, THIS SHEET.
F. IF SIDEWALK IS AGAINST CURB, THE SIDEWALK SHOULD BE TRANSITIONED TO KEEP THE CURB ACCESS RAMP IN THE LOCATION SHOWN.
G. 1/2" EXPANSION JOINT.
H. THEORETICAL FACE OF CURB OR FLOWLINE.
J. DETECTABLE WARNING DEVICES FOR DRIVE ENTRANCES ≥30 FEET BETWEEN FACES OF CURB (SEE STD. DWG. 2446 FOR PLACEMENT DETAILS).
K. LEVEL LANDING (2% MAXIMUM SLOPE).
L. 8.3% MAXIMUM SLOPE, 7% PREFERRED SLOPE.
M. SLOPE OF GUTTER NOT TO EXCEED 2% ADJACENT TO RAMP.
N. FLUSH WITH RAMP AND GUTTER.
P. CURB AND GUTTER (SEE STD. DWG. 2415 – GUTTER AT CURB ACCESS RAMP).
Q. 2% MAXIMUM CROSS–SLOPE. 1.5% PREFERRED CROSS–SLOPE.
R. NOT USED
S. VARIES WITH AVAILABLE RIGHT–OF–WAY.

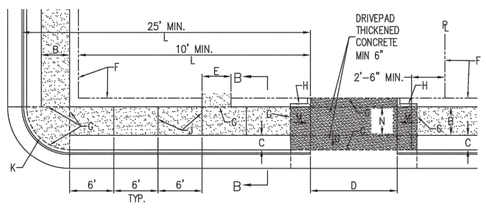
REVISIONS	CITY OF ALBUQUERQUE
	PAVING
	PRIVATE ENTRANCE DETAILS– ILLUSTRATING TWO R/W CONDITIONS
	DWG. 2426 JUNE 2019



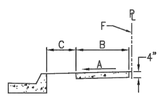
PLAN
CURB TYPE SIDEWALK



SECTION A–A



PLAN
OFFSET TYPE SIDEWALK



SECTION B–B

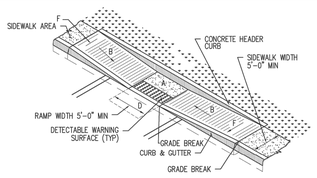
CONSTRUCTION NOTES

A. SLOPE 2% MAX. 1.5% PREFERRED SLOPE.
B. 5' MIN. SIDEWALK WIDTH. SIDEWALK WIDTH SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF DEVELOPMENT PROCESS MANUAL.
C. SETBACK TO BE DETERMINED BY AVAILABLE RIGHT–OF–WAY. SEE CHAPTER 7 OF DEVELOPMENT PROCESS MANUAL. ALSO SEE COA STD. DWG. 2414 FOR LANDSCAPE BUFFER.
D. SEE DRIVEPAD DETAILS, DWG. 2425A AND 2425B.
E. WALKWAY VARIABLE (4' MINIMUM).
F. PROPERTY LINE.
G. 1/2" EXPANSION JOINTS WHERE SIDEWALK OR DRIVEPAD ABUTS BUILDINGS, FENCES, WALLS OR OTHER IMMOVABLE OBJECTS.
H. HEADER CURB OR INTEGRAL CURB AS REQUIRED TO MEET GRADE AT BACK OF SIDEWALK. SEE STD. DWG. 2415.
J. CONTRACTION JOINTS.
K. FOR CURB ACCESS RAMPS, SEE DWGS. 2440 THROUGH 2445.
L. CHECK DIMENSION FROM BOTH PROPERTY LINE AND FLOW LINE. USE IN AREAS WHERE DRIVEPAD IS FARTHEST FROM INTERSECTION.
M. RAMP AS REQUIRED TO MEET DRIVEPAD GRADE. 8.3% MAX. SLOPE, 7% PREFERRED SLOPE.
N. ADA ACCESSIBLE PATHWAY. 2% MAX. CROSS–SLOPE. 1.5% PREFERABLE CROSS–SLOPE.

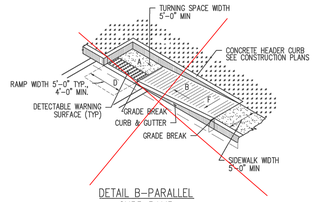
REVISIONS	CITY OF ALBUQUERQUE
	PAVING
	SIDEWALK DETAILS
	DWG. 2430 JUNE 2019

3 SIDEWALK DETAILS

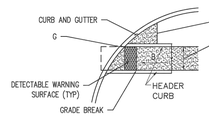
N.T.S.



DETAIL A–PARALLEL CURB RAMP
(RAMP AT ACCESSIBLE PARKING)



DETAIL B–PARALLEL CURB RAMP



(ALAMEDA & ACCESSIBLE ROUTE)

DETAIL C– PARALLEL CURB RAMP

GENERAL NOTES

1. RUNNING SLOPE OF A CURB RAMP SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15–FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS THE MAXIMUM EXTENT AS FEASIBLE.
2. SEE COA STD. DWG. 2446 FOR DETECTABLE WARNING DEVICE DETAILS.

CONSTRUCTION NOTES

A. TURNING SPACE SHALL HAVE MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.0% (PREFERRED SLOPE OF 1.5%). TURNING SPACE SHALL BE 5.0 FT BY 5.0 FT AT THE TOP OF THE CURB RAMP.
B. 8.3% MAX. SLOPE OF RAMP, 7% PREFERABLE SLOPE OF RAMP.
C. GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
D. COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
E. FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX, MEASURED PARALLEL TO THE BACK OF THE CURB.
F. 2% MAXIMUM CROSS–SLOPE. 1.5% PREFERRED CROSS–SLOPE.
G. FILLET SHARP CURVES EXPOSED TO TRAFFIC TO 6" MINIMUM RADIUS.

REVISIONS	CITY OF ALBUQUERQUE
	PAVING
	PARALLEL AND DIAGONAL CURB RAMPS
	DWG. 2443 JUNE 2019

4 PARALLEL AND DIAGONAL CURB RAMPS - (CABQ 2443)

N.T.S.

CABQ # BP-2022-39517

KENT A. DELPH NEW MEXICO 13939 REGISTERED PROFESSIONAL ENGINEER 2-28-23

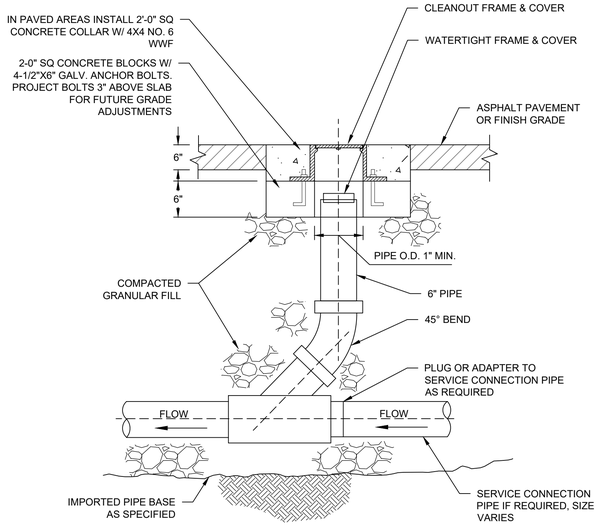
DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

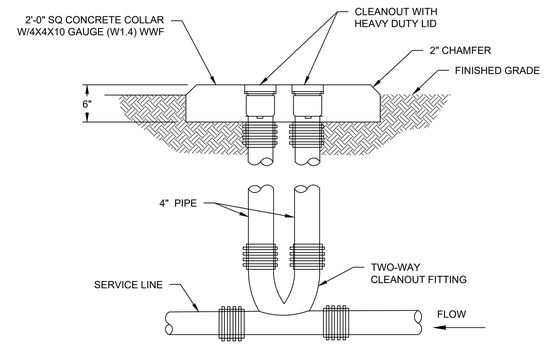
7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

CIVIL DETAILS

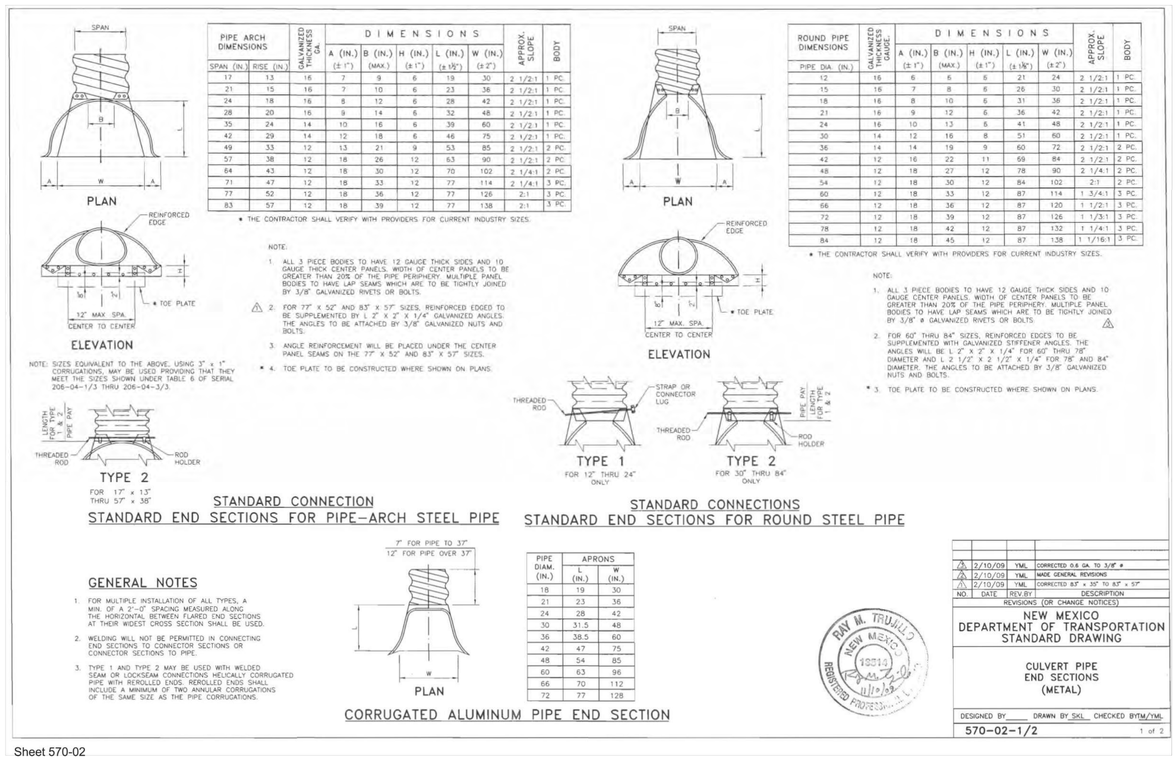
D-103



1 SINGLE CLEANOUT DETAIL
N.T.S.



2 DOUBLE CLEANOUT DETAIL
N.T.S.



PIPE ARCH DIMENSIONS		GALVANIZED THICKNESS GA.	DIMENSIONS					APPROX. SLOPE	BODY
			A (IN.) (± 1")	B (IN.) (MAX.)	H (IN.) (± 1")	L (IN.) (± 1½")	W (IN.) (± 2")		
SPAN (IN.)	RISE (IN.)								
17	13	16	7	9	6	19	30	2 1/2:1	1 PC.
21	15	16	7	10	6	23	36	2 1/2:1	1 PC.
24	18	16	8	12	6	28	42	2 1/2:1	1 PC.
28	20	16	9	14	6	32	48	2 1/2:1	1 PC.
35	24	14	10	16	6	39	60	2 1/2:1	1 PC.
42	29	14	12	18	6	46	75	2 1/2:1	1 PC.
49	33	12	13	21	9	53	85	2 1/2:1	2 PC.
57	38	12	18	26	12	63	90	2 1/2:1	2 PC.
64	43	12	18	30	12	70	102	2 1/4:1	2 PC.
71	47	12	18	33	12	77	114	2 1/4:1	3 PC.
77	52	12	18	36	12	77	126	2:1	3 PC.
83	57	12	18	39	12	77	138	2:1	3 PC.

* THE CONTRACTOR SHALL VERIFY WITH PROVIDERS FOR CURRENT INDUSTRY SIZES.

NOTE:
1. ALL 3 PIECE BODIES TO HAVE 12 GAUGE THICK SIDES AND 10 GAUGE THICK CENTER PANELS. WIDTH OF CENTER PANELS TO BE GREATER THAN 20% OF THE PIPE PERIPHERY. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY 3/8" GALVANIZED RIVETS OR BOLTS.
2. FOR 77" X 52" AND 83" X 57" SIZES, REINFORCED EDGED TO BE SUPPLEMENTED BY L 2" X 2" X 1/4" GALVANIZED ANGLES. THE ANGLES TO BE ATTACHED BY 3/8" GALVANIZED NUTS AND BOLTS.
3. ANGLE REINFORCEMENT WILL BE PLACED UNDER THE CENTER PANEL SEAMS ON THE 77" X 52" AND 83" X 57" SIZES.
4. TOE PLATE TO BE CONSTRUCTED WHERE SHOWN ON PLANS.

NOTE: SIZES EQUIVALENT TO THE ABOVE, USING 3" x 1" CORRUGATIONS, MAY BE USED PROVIDING THAT THEY MEET THE SIZES SHOWN UNDER TABLE 6 OF SERIAL 206-04-1/3 THRU 206-04-3/3.

STANDARD CONNECTION
STANDARD END SECTIONS FOR PIPE-ARCH STEEL PIPE

ROUND PIPE DIMENSIONS	GALVANIZED THICKNESS GA.	DIMENSIONS					APPROX. SLOPE	BODY
		A (IN.) (± 1")	B (IN.) (MAX.)	H (IN.) (± 1")	L (IN.) (± 1½")	W (IN.) (± 2")		
PIPE DIA. (IN.)								
12	16	6	6	6	21	24	2 1/2:1	1 PC.
15	16	7	8	6	26	30	2 1/2:1	1 PC.
18	16	8	10	6	31	36	2 1/2:1	1 PC.
21	16	9	12	6	36	42	2 1/2:1	1 PC.
24	16	10	13	6	41	48	2 1/2:1	1 PC.
30	14	12	16	8	51	60	2 1/2:1	1 PC.
36	14	14	19	9	60	72	2 1/2:1	2 PC.
42	12	16	22	11	69	84	2 1/2:1	2 PC.
48	12	18	27	12	78	90	2 1/4:1	2 PC.
54	12	18	30	12	84	102	2:1	2 PC.
60	12	18	33	12	87	114	1 3/4:1	3 PC.
66	12	18	36	12	87	120	1 1/2:1	3 PC.
72	12	18	39	12	87	126	1 1/3:1	3 PC.
78	12	18	42	12	87	132	1 1/4:1	3 PC.
84	12	18	45	12	87	138	1 1/16:1	3 PC.

* THE CONTRACTOR SHALL VERIFY WITH PROVIDERS FOR CURRENT INDUSTRY SIZES.

NOTE:
1. ALL 3 PIECE BODIES TO HAVE 12 GAUGE THICK SIDES AND 10 GAUGE CENTER PANELS. WIDTH OF CENTER PANELS TO BE GREATER THAN 20% OF THE PIPE PERIPHERY. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY 3/8" ø GALVANIZED RIVETS OR BOLTS.
2. FOR 60" THRU 84" SIZES, REINFORCED EDGES TO BE SUPPLEMENTED WITH GALVANIZED STIFFENER ANGLES. THE ANGLES WILL BE L 2" X 2" X 1/4" FOR 60" THRU 78" DIAMETER AND L 2 1/2" X 2 1/2" X 1/4" FOR 78" AND 84" DIAMETER. THE ANGLES TO BE ATTACHED BY 3/8" GALVANIZED NUTS AND BOLTS.
3. TOE PLATE TO BE CONSTRUCTED WHERE SHOWN ON PLANS.

STANDARD CONNECTIONS
STANDARD END SECTIONS FOR ROUND STEEL PIPE

GENERAL NOTES

1. FOR MULTIPLE INSTALLATION OF ALL TYPES, A MIN. OF A 2'-0" SPACING MEASURED ALONG THE HORIZONTAL BETWEEN FLARED END SECTIONS AT THEIR WIDEST CROSS SECTION SHALL BE USED.
2. WELDING WILL NOT BE PERMITTED IN CONNECTING END SECTIONS TO CONNECTOR SECTIONS OR CONNECTOR SECTIONS TO PIPE.
3. TYPE 1 AND TYPE 2 MAY BE USED WITH WELDED SEAM OR LOCKSEAM CONNECTIONS HELICALLY CORRUGATED PIPE WITH REROLLED ENDS. REROLLED ENDS SHALL INCLUDE A MINIMUM OF TWO ANNULAR CORRUGATIONS OF THE SAME SIZE AS THE PIPE CORRUGATIONS.

PIPE DIAM. (IN.)	APRONS L (IN.)	APRONS W (IN.)
18	19	30
21	23	36
24	28	42
30	31.5	48
36	38.5	60
42	47	75
48	54	85
60	63	96
66	70	112
72	77	128

CORRUGATED ALUMINUM PIPE END SECTION

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)
1	2/10/09	YML	CORRECTED 0.6 GA. TO 3/8" ø
2	2/10/09	YML	MADE GENERAL REVISIONS
3	2/10/09	YML	CORRECTED 83" x 35" TO 83" x 57"

NEW MEXICO DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

CULVERT PIPE END SECTIONS (METAL)

DESIGNED BY____ DRAWN BY SKL CHECKED BY TM/YML

570-02-1/2 1 of 2

RAY M. TRUJILLO NEW MEXICO 13814 REGISTERED PROFESSIONAL ENGINEER 11/19/09

Sheet 570-02

3 CULVERT PIPE END SECTIONS - (NMDOT 570-02-1/2)
NTS

CABQ # BP-2022-39517

KENT L. DELPHEY NEW MEXICO 13939 2-28-2023 REGISTERED PROFESSIONAL ENGINEER

DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

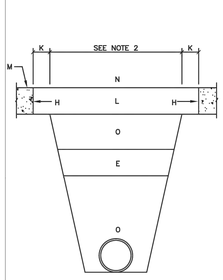
PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

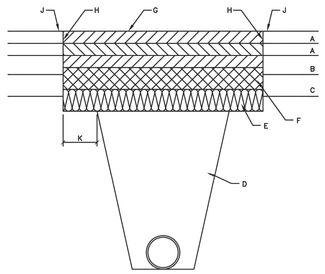
CIVIL DETAILS

D-104

C:\Projects\21-45 - Precision Eye\DWG_Civil Sheets-Details_Precision.dwg 02/28/2023 - 6:45 AM



CONCRETE PAVEMENT



ASPHALT CONCRETE PAVEMENT

GENERAL NOTES:

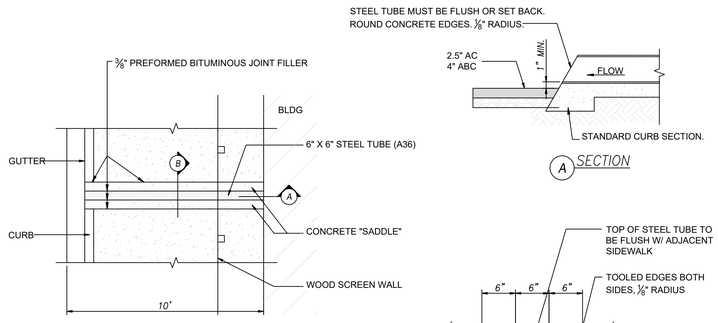
1. COMPACTION AS DETERMINED BY ASTM D1557 MAX DENSITY.
2. TRENCH CUT WIDTHS SHALL BE MIN. WIDTH REQ'D FOR UTILITY INSTALLATION, ECONOMICAL BACKFILL COMPACTION AND COMPLIANCE WITH CURRENT AND APPLICABLE SAFETY REGULATIONS.
3. ALL PAVEMENTS CUT EDGES WILL BE TRIMMED TO PRESENT AN EVEN LINE PRIOR TO REPLACEMENT OF PAVING MATERIAL. "STITCH" CUTTING OF PAVEMENT WILL NOT BE PERMITTED.
4. ADDITIONAL 2" THICKNESS OF ASPHALT CONC. REQ'D ON PAVEMENT CUTS LESS THAN 8' WIDE FOR ASPHALT CONC. PAVEMENT CUTS 8' OR MORE IN WIDTH AND LONGER THAN 100' SHALL BE PLACED WITH LAYDOWN MACHINE TO A DEPTH EQUAL TO THAT OF ASPHALT CONC. REMOVED.

CONSTRUCTION NOTES:

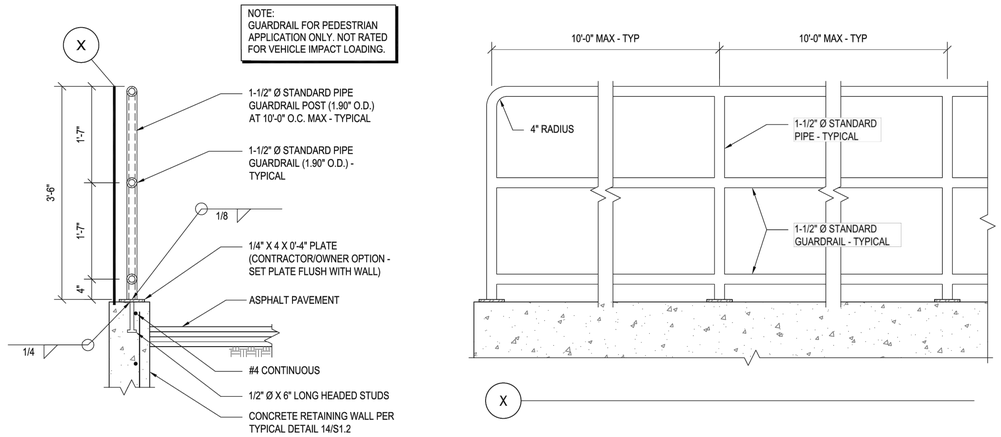
A. EXISTING ASPHALT PAVEMENT.
B. EXISTING BASE MATERIAL (ABC, BTB, CTB)
C. EXISTING SUBGRADE
D. COMPACTED FILL, 95% COMPACTION
E. COMPACTED SUBGRADE, 95% COMPACTION. SUBGRADE TO MEET OR EXCEED APPARENT R-VALUE OF ADJACENT SOIL, BY SOIL CLASSIFICATION (2 FEET MIN.).
F. MATCH EXISTING BASE MATERIAL PLUS AN ADDITIONS 2" OF THICKNESS — 95% COMPACTION
G. MATCH EXISTING ASPHALT CONCRETE SECTION PLUS AN ADDITIONAL 2" OF THICKNESS
   a) FOR RESIDENTIAL STREETS, SURFACE COURSE SHALL BE 1 1/2" THICK, TYPE C
   b) FOR MAJOR LOCAL STREETS, SURFACE COURSE SHALL BE 2" THICK, TYPE B
   c) FOR ALL OTHER STREETS, SURFACE COURSE SHALL BE 2" THICK, S-III
H. SAW CUT OR BLADE-CUT ASPHALT PAVEMENT. SAW CUT ONLY ONE THIRD CONC. DEPTH
J. TACK COAT
K. 12" CUT-BACK
L. MATCH EXISTING CONCRETE PAVEMENT THICKNESS, 6" MINIMUM, 4000 PSI
M. EXISTING CONCRETE PAVEMENT
N. JOINTS TO BE TOOLED & SEALED IN ACCORDANCE WITH ENGINEERS REQUIREMENTS
O. 6" CONC. TREATED BASE (C-T.B).

REVISIONS	CITY OF ALBUQUERQUE
	PAVING CITYWIDE PAVEMENT CUTS FOR ALL UTILITIES DWG 2465 JANUARY 2019

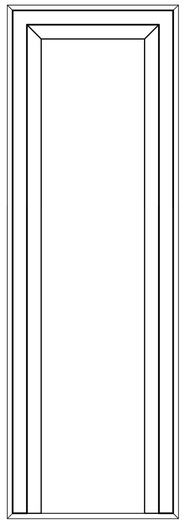
1 PAVEMENT CUT & REPAIR FOR UTILITIES
N.T.S.



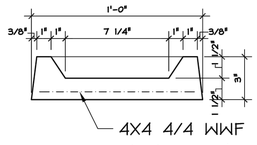
2 SIDEWALK SCUPPER
N.T.S.



SK1 GUARDRAIL AT CONCRETE RETAINING WALL



PLAN



ELEVATION

MATERIALS INC.
DETAIL SHOWN
(505) 867-9035
(OR APPROVED EQUAL)

WEIGHT: 75#

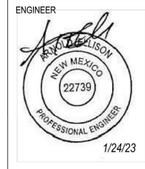
CONCRETE SPECIFICATIONS
4000 f'c 28-DAY COMPRESSIVE STRENGTH
4-7% ENTRAINED AIR
MILD STEEL REINFORCING AS REQUIRED
POLYPROPYLENE FIBER SECONDARY REINFORCING
FORMS
SMOOTH SURFACE FIBERGLASS
COLORS
GREY
FINISHES
SMOOTH AS-CAST

12" X 36" SPLASH BLOCK

ARCHITECTURAL PRECAST CONCRETE
MATERIALS, INC.

3 CONCRETE SPLASH BLOCK
N.T.S.

ARNOLD ELLISON, PE
(505) 360-3788
Farmington, NM
ENGINEER



1/24/23

PRECISION EYE CENTER
7521 ALAMEDA DRIVE
ALBUQUERQUE, NM 87122

100% PERMIT DRAWINGS

REVISION	DATE

DATE	1/24/23
PROJECT NO	02125
SHEET NO.	SK1

CABQ # BP-2022-39517

DELPH ENGINEERING
3620 Wyoming Blvd. NE, # 203
Albuquerque, New Mexico 87111
Phone. (505) 206-8385
kent@delpheng.com

PRECISION EYE CENTER
SITE IMPROVEMENT PLANS

7521 ALAMEDA BLVD. NE
ALBUQUERQUE, NM 87113

CIVIL DETAILS

D-105

C:\Projects\21-45 - Precision Eye\DWG_Civil Sheets-Details_Precision.dwg 02/28/2023 - 6:46 AM