

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

May 19, 2022

Scott Eddings, PE
Huitt-Zollars
333 Rio Rancho Blvd
Rio Rancho, NM 87124

**RE: The Lofts at Winrock
7500 Indian School Road
Grading and Drainage Plan
Engineer's Stamp Date: 1/26/22
Hydrology File: J19D089**

Dear Mr. Eddings:

Based upon the information provided in your submittal received 4/6/2022, the Grading & Drainage Plan **is not** approved for Grading Permit. The following comments need to be addressed for approval of the above referenced project:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

General Notes

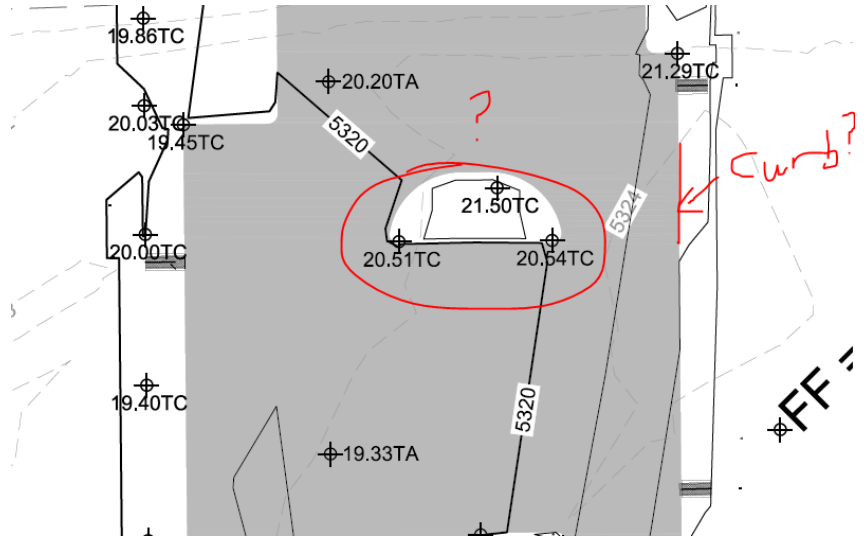
1. Please use 1:20 scale on the G & D.
2. The site does not qualify for redevelopment. Please calculate the required storm water quality volume for undeveloped using the corrected value of 0.42 and not 0.26.
3. The G & D needs to utilize the revised DPM Chapter 6 not the old DPM Chapter 22.
 - a. Please revise and resubmit with proper calculations.
4. Please show storm pipe on the grading plan with pipe materials.
 - a. Also show where this drains to. Winrock place?
 - b. There should be an overall sheet showing how everything works together.
5. Please provide a legend explaining what your points mean. (i.e. 19.33TA I assume is top of asphalt? 20.51TC top of curb?. TBC? FL (flowline) – Please clarify so we do not have to guess.)
6. Please clearly define Storm Water Quality Ponds and proposed volumes (include sections for each showing the outlet elevation, water surface of retained volume, 100 yr elevation and bottom elevation.)
 - a. Payment in lieu will not be approved for this site so please ensure to include ponding for the required volume once updated.
 - b. It is unclear how water is entering the depressed areas with the shown plan.
 - i. Curb openings? Please show and make it clear.
7. Please review the conceptual G&D that was approved and include more details. It appears some detail was lost.
 - a. Maybe some layers were turned off?

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- i.
8. Is the grey shaded area all proposed pavement? If so, will off-site stuff be constructed as part of this building permit?
 9. Note: all work within public right-of-way will need to be constructed with a DRC work order.
 10. Please clearly note what is proposed. It is not clear on the grading plan if sidewalk culverts shown will be constructed with this? If so, please contact me and we will need some notes added to the plans that I can provide.
 11. Please provide benchmark and datum.
 12. How is flow getting out to Indian School here?

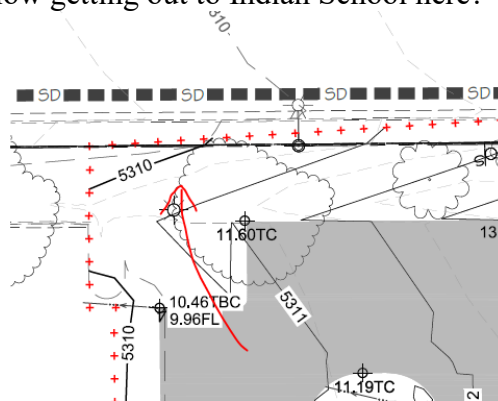
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CITY OF ALBUQUERQUE

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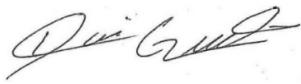


Mayor Timothy M. Keller

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.

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

Sincerely,



David G. Gutierrez, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

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

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ 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?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

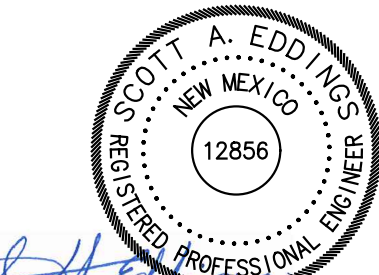
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ SO-19 APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ GRADING/ PAD CERTIFICATION
- _____ WORK ORDER APPROVAL
- _____ CLOMR/LOMR
- _____ FLOODPLAIN DEVELOPMENT PERMIT
- _____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



INTRODUCTION
This drainage report addresses the proposed drainage improvements to support development on Parcel E-1-A.

FLOOD HAZARD ZONE
The site does not lie within a flood zone as shown on Flood Insurance Rate Map Number 35001C0356H, dated August 16, 2012. See Appendix A for the FEMA Flood Insurance Rate Map.

RELATED REPORTS
This report references the Drainage Master Plan for Winrock Town Center (DMP) by Isaacson & Arfman, PA, dated June 26, 2015. The DMP provided analysis for Winrock Town Center plus Parcel D1-1-A and E-1-A Winrock Center Addition. All hydrology calculations were completed for the 100-year, 6-hour storm. The DMP defines allowable peak flowrates at major analysis points. This drainage study for the Multi-Family project on Parcel E-1-A will utilize hydrology calculations from the DMP.

This report also references the Winrock Town Center Drainage Implementation Plan (DIP) by Huitt-Zollars, Inc., dated May 23, 2019.

JURISDICTIONS OF PUBLIC AGENCIES
This project is located entirely within the City of Albuquerque (CoA) Municipal Limits and is therefore within their jurisdiction and must comply with the City's development requirements.

METHODOLOGY
This drainage report follows procedures outlined in the Development Process Manual, Chapter 22, by City of Albuquerque (DPM). This report will utilize hydrology calculations from the DMP.

EXISTING CONDITIONS
Parcel E-1-A is undeveloped.

Winrock site is a complex of buildings that includes the main mall, a number of outlying restaurants, Chuz, and movie theater. The existing mall building is composed of a number of individual buildings that were closed by an overall structure. The site is approximately 80 acres which is approximately 88% impervious. As previously studied in recent drainage reports, the site has multiple drainage outfalls which are summarized below and shown on Exhibit 1 of the Winrock Town Center Drainage Implementation Plan:

- AP-A - Discharge flowrate = 81.9 CFS
- AP-B - Discharge flowrate = 123.4 CFS
- AP-C - Discharge flowrate = 15.5 CFS
- AP-D - Discharge flowrate = 120.1 CFS
- AP-E - Discharge flowrate = 5.5 CFS
- AP-F - Discharge flowrate = 12.9 CFS
- AP-G - Discharge flowrate = 81.1 CFS

PROPOSED CONDITIONS
Construction limits of this project are shown on the Vicinity Map to the left. Basin Maps are shown on this sheet. Existing basins delineated from the DMP are used for this report. This project discharges onto Indian School Road, Analysis Point G (AP-G) of the DMP. AP-G flowrate is 81.1 cfs which includes developed land treatments for this parcel, Parcel E-1-A Winrock Center Addition.

STORM WATER QUALITY
Storm water quality shall be provided within depressed parking islands. Payment-in-Lieu shall be made to the City of Albuquerque for the difference between the required water quality pond capacity and the provided water quality pond capacity.

STORM WATER QUALITY VOLUME
Project Pavements Area = 84,800 sf
Required Storm Water Quality Volume = 84,800 sf * (0.26"/12) = **1,838 cf**

PUBLIC STORM DRAINAGE INFRASTRUCTURE
This project does not require any public drainage infrastructure improvements.

LEGEND

DISCHARGE LOCATION
FLOW DIRECTION
BASIN BOUNDARY

EARTHWORK SUMMARY

CUT: 4.425 CUBIC YARDS
FILL: 2.800 CUBIC YARDS
NET: 1.625 CUBIC YARDS (EXPORT)

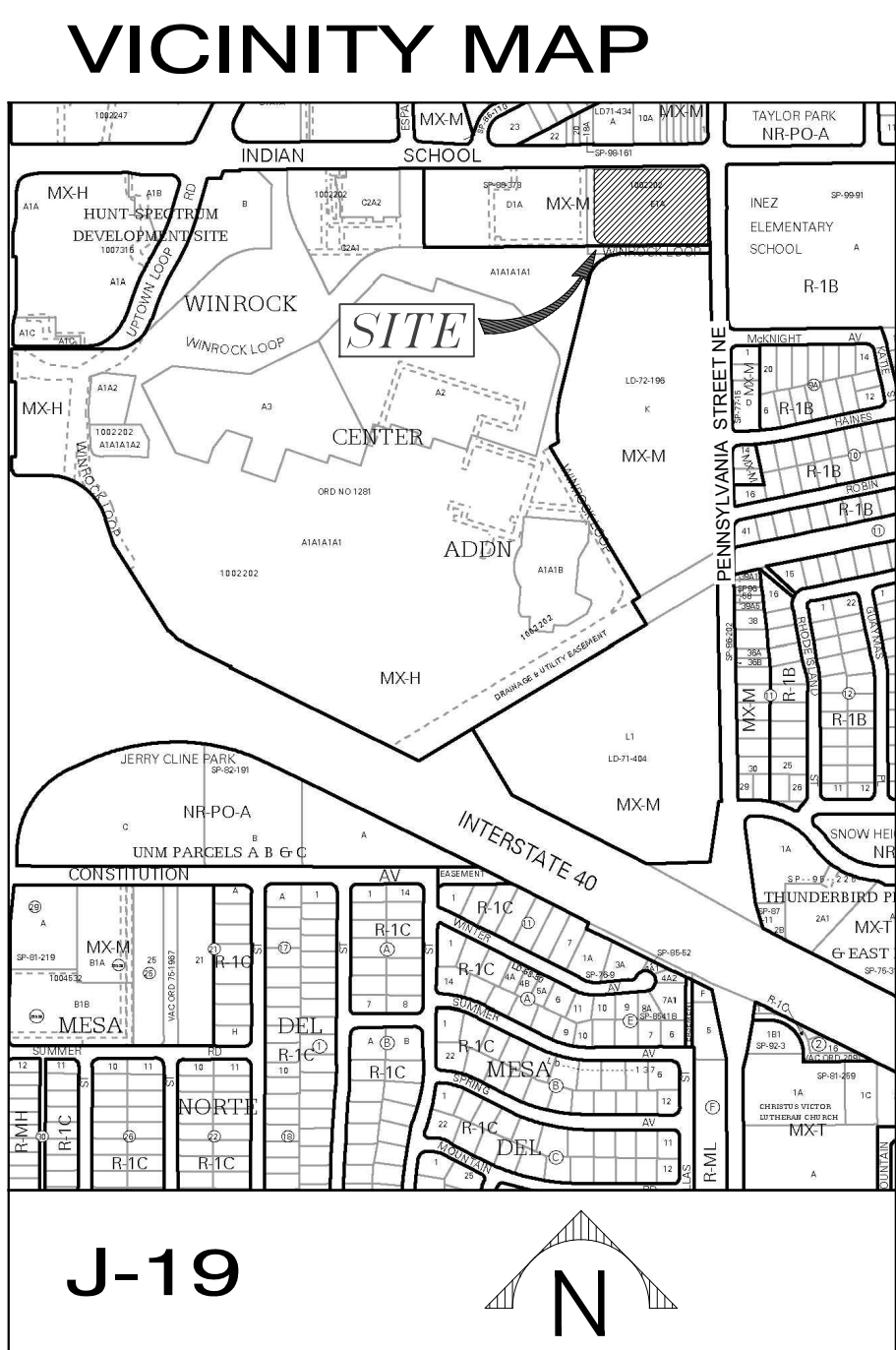
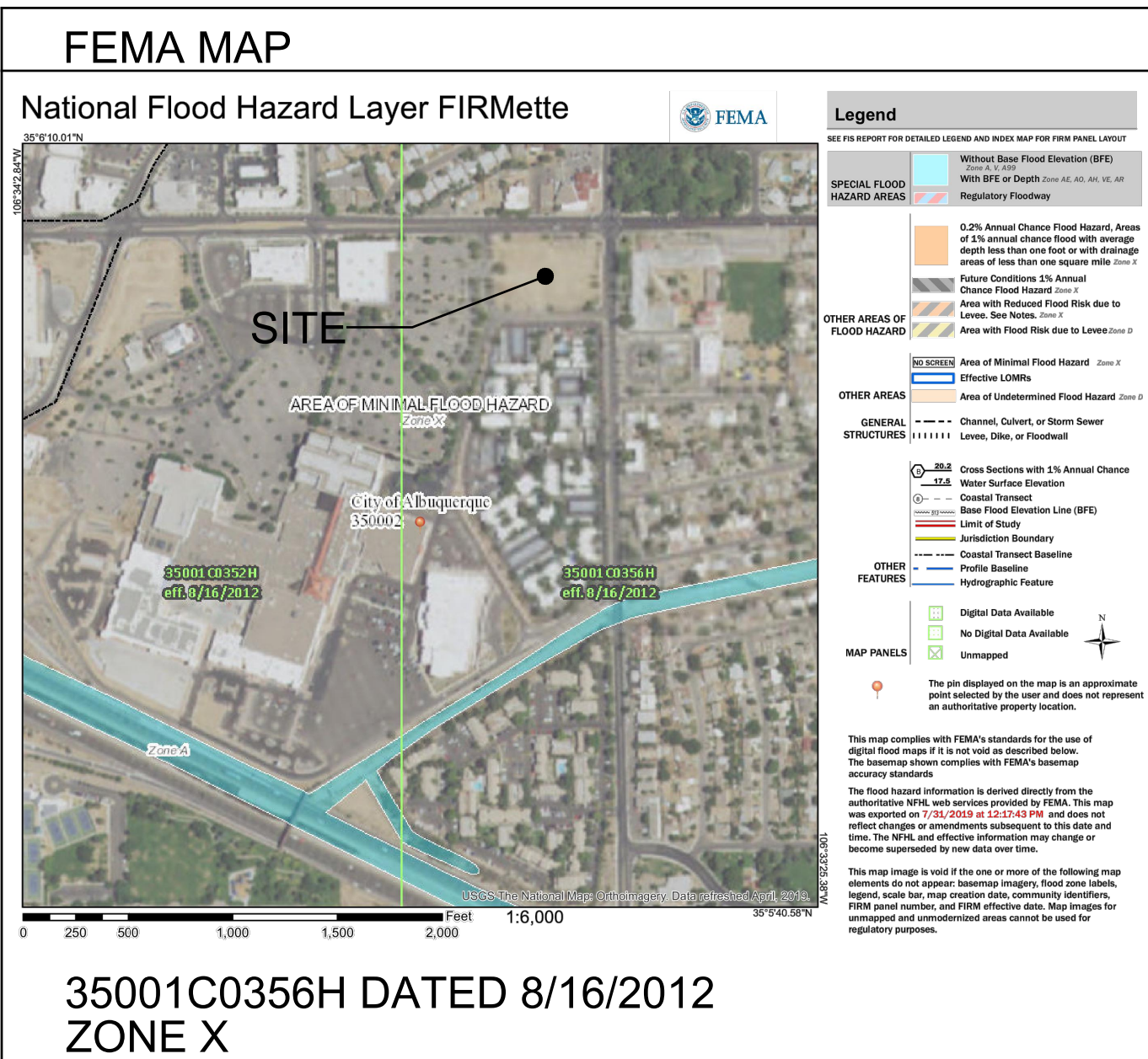
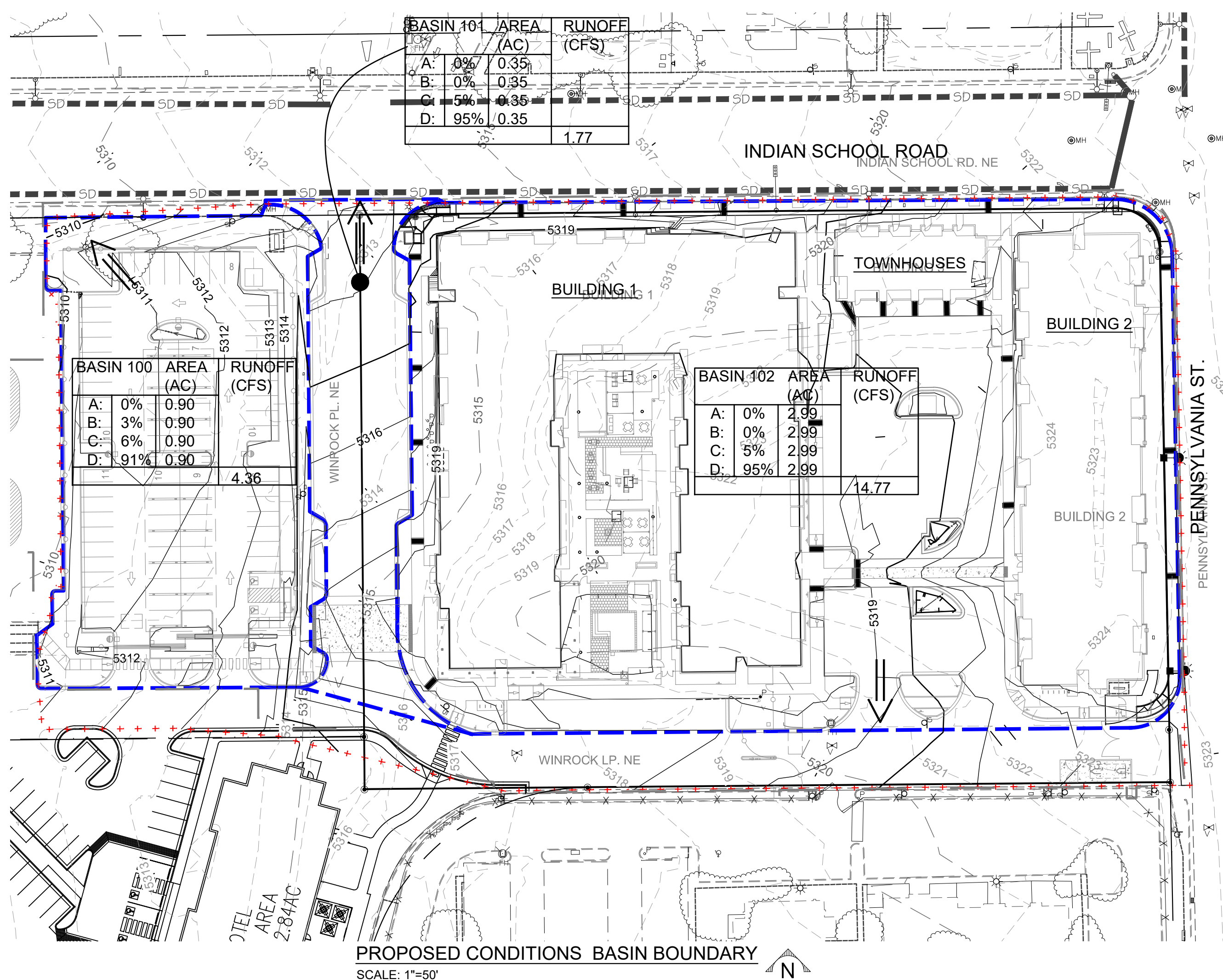
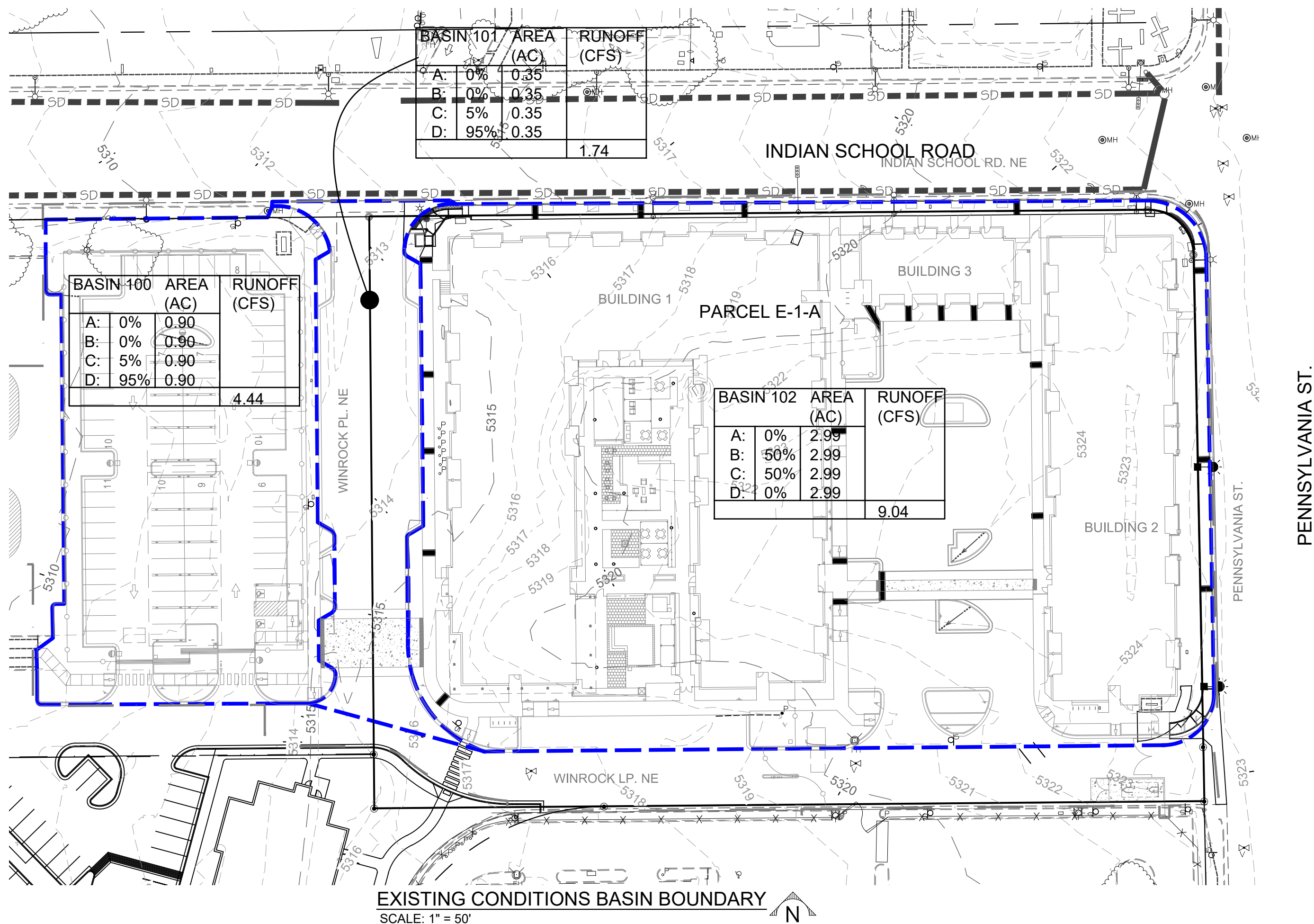
CITY WORK ORDER

WORK WITHIN CITY RIGHT OF WAY SHALL BE PERFORMED AS PART OF A CITY WORK ORDER. ROADWAY WORK ON INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE, INCLUDING DEMOLITION ON PRIVATE PROPERTY SHALL ALSO BE PART OF THE CITY WORK ORDER.

PRICING OF CITY WORK ORDER SHALL BE INCENTAL TO PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE REQUIRED.

CITY WORK ORDER WILL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

- DEMOLITION OF RIGHT TURN LANE ON PENNSYLVANIA AVE.
- NEW CURB AND GUTTER ALONG PENNSYLVANIA AVE.
- NEW SIDEWALK ALONG PENNSYLVANIA AVE.
- SITE ENTRANCE AT PENNSYLVANIA AVE.
- RELOCATION OF WATERLINE AT SOUTHERN ENTRANCE ALONG PENNSYLVANIA AVE.
- RESTRIPING OF PENNSYLVANIA AT INDIAN SCHOOL ROAD.
- SITE ENTRANCE AT INDIAN SCHOOL ROAD.
- SAS CONNECTION WITHIN INDIAN SCHOOL ROAD.
- SIDEWALK DEMOLITION AND REPLACEMENT ALONG INDIAN SCHOOL ROAD.
- 24-INCH SIDEWALK CULVERTS ALONG BOTH INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE.





ARCHITECT

ENGINEER



1/26/22

PROJECT

THE LOFTS @ WINROCK
7500 INDIAN SCHOOL ROAD NE
ALBUQUERQUE, NM 87110

ISSUED FOR PERMIT

REVISIONS



DRAWN BY

REVIEWED BY

DATE 01-26-2022

PROJECT NO. R31298701

DRAWING NAME

HYRDOLOGY

SHEET NO.

C101

OF

CITY WORK ORDER

WORK WITHIN CITY RIGHT OF WAY SHALL BE PERFORMED AS PART OF A CITY WORK ORDER. ROADWAY WORK ON INDIAN SCHOOL ROAD AND PENNSYLVANIA, INCLUDING DEMOLITION ON PRIVATE PROPERTY SHALL ALSO BE PART OF THE CITY WORK ORDER.

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1. DEMOLITION OF RIGHT TURN LANE ON PENNSYLVANIA AVE.
2. NEW CURB AND GUTTER ALONG PENNSYLVANIA AVE.
3. NEW SIDEWALK ALONG PENNSYLVANIA AVE.
4. SITE ENTRANCE AT PENNSYLVANIA AVE.
5. RELOCATION OF WATERLINE AT SOUTHERN ENTRANCE ALONG PENNSYLVANIA AVE.
6. RESTRIPING OF PENNSYLVANIA AT INDIAN SCHOOL ROAD.
7. SITE ENTRANCE AT INDIAN SCHOOL ROAD.
8. SAS CONNECTION WITHIN INDIAN SCHOOL ROAD.
9. SIDEWALK DEMOLITION AND REPLACEMENT ALONG INDIAN SCHOOL ROAD.
10. 24-INCH SIDEWALK CULVERTS ALONG BOTH INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE.

HUITT-ZOLLARS

DRAINAGE AREA 100

AREA = 39,133 sf
AREA = 0.90 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

TREATMENT A 0.66 in. 1.87 cfs/ac.
TREATMENT B 0.92 in. 2.60 cfs/ac.
TREATMENT C 1.29 in. 3.45 cfs/ac.
TREATMENT D 2.36 in. 5.02 cfs/ac.

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

	%	AREA	%	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	3%	0.03 ac.
TREATMENT C	5%	0.04 ac.	6%	0.05 ac.
TREATMENT D	95%	0.85 ac.	91%	0.82 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(0.00)+(1.29)(0.04)+(2.36)(0.85) = 0.90 ac.
= 2.31 in.
V100-360 = (2.31)(0.90) = 2.072674 ac-ft = 7522 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(0.00)+(3.45)(0.04)+(5.02)(0.85) = 4.44 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(0.03)+(1.29)(0.05)+(2.36)(0.82) = 0.90 ac.
= 2.25 in.
V100-360 = (2.25)(0.90) = 2.025 ac-ft = 7346 cf
V100-1440 = (0.17)+(0.82)(3.10 - 2.60) = 0.202702 ac-ft = 8830 cf
V100-10day = (0.17)+(0.82)(4.90 - 2.60) = 0.325330 ac-ft = 14171 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(0.03)+(3.45)(0.05)+(5.02)(0.82) = 4.36 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.26" OF RAINFALL

V = 848 cf

DRAINAGE BASIN 101

AREA = 15,319 sf
AREA = 0.35 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

TREATMENT A 0.66 in. 1.87 cfs/ac.
TREATMENT B 0.92 in. 2.60 cfs/ac.
TREATMENT C 1.29 in. 3.45 cfs/ac.
TREATMENT D 2.36 in. 5.02 cfs/ac.

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

	%	AREA	%	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	0%	0.00 ac.
TREATMENT C	5%	0.02 ac.	0%	0.00 ac.
TREATMENT D	95%	0.33 ac.	100%	0.35 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(0.00)+(1.29)(0.02)+(2.36)(0.33) = 0.35 ac.
= 2.31 in.
V100-360 = (2.31)(0.35) = 0.067595 ac-ft = 2944 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(0.00)+(3.45)(0.02)+(5.02)(0.33) = 1.74 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(0.00)+(1.29)(0.00)+(2.36)(0.35) = 0.35 ac.
= 2.36 in.
V100-360 = (2.36)(0.35) = 0.069163 ac-ft = 3013 cf
V100-1440 = (0.07)+(0.35)(3.10 - 2.60) = 0.083816 ac-ft = 3651 cf
V100-10day = (0.07)+(0.35)(4.90 - 2.60) = 0.136567 ac-ft = 5949 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(0.00)+(3.45)(0.00)+(5.02)(0.35) = 1.77 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.34" OF RAINFALL

V = 434 cf

DRAINAGE BASIN 102

AREA = 130,175 sf
AREA = 2.99 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

TREATMENT A 0.66 in. 1.87 cfs/ac.
TREATMENT B 0.92 in. 2.60 cfs/ac.
TREATMENT C 1.29 in. 3.45 cfs/ac.
TREATMENT D 2.36 in. 5.02 cfs/ac.

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

	%	AREA	%	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	50%	1.49 ac.	0%	0.00 ac.
TREATMENT C	50%	1.49 ac.	5%	0.15 ac.
TREATMENT D	0%	0.00 ac.	95%	2.84 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(1.49)+(1.29)(1.49)+(2.36)(0.00) = 2.99 ac.
= 1.11 in.
V100-360 = (1.11)(2.99) = 0.275182 ac-ft = 11987 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(1.49)+(3.45)(1.49)+(5.02)(0.00) = 9.04 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)(0.00)+(0.92)(0.00)+(1.29)(0.15)+(2.36)(2.84) = 2.99 ac.
= 2.31 in.
V100-360 = (2.31)(2.99) = 0.574397 ac-ft = 25021 cf
V100-1440 = (0.57)+(2.84)(3.10 - 2.60) = 0.692688 ac-ft = 30173 cf
V100-10day = (0.57)+(2.84)(4.90 - 2.60) = 1.118536 ac-ft = 48723 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)(0.00)+(2.60)(0.00)+(3.45)(0.15)+(5.02)(2.84) = 14.77 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.34" OF RAINFALL

V = 3,688 cf

VICINITY MAP



LEGEND

- EXISTING (INDEX) CONTOUR
- EXISTING (INTERMEDIATE) CONTOUR
- PROPOSED (INDEX) CONTOUR
- PROPOSED (INTERMEDIATE) CONTOUR
- GRADING LIMITS - PLACE SILT FENCE BEYOND GRADING LIMITS

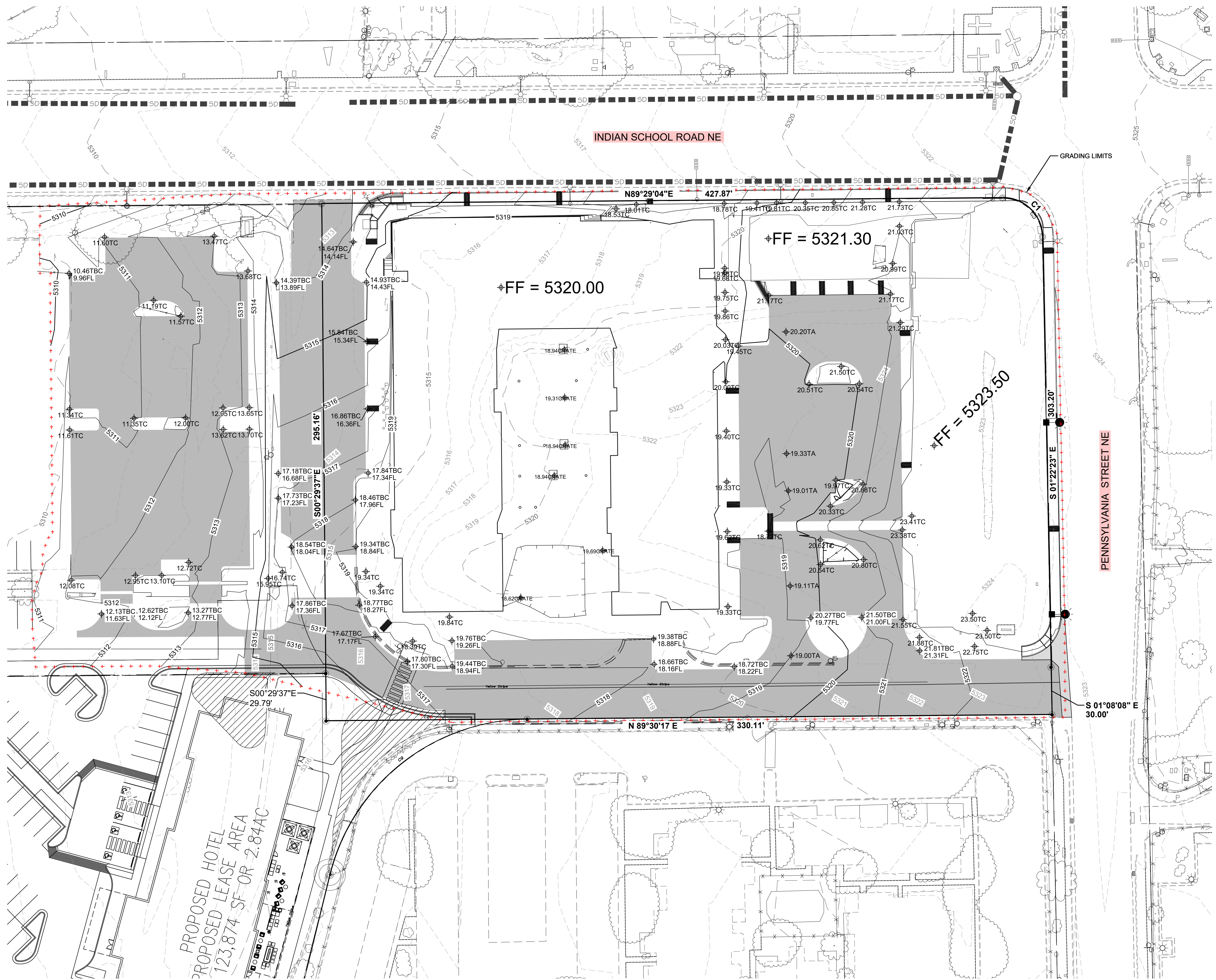
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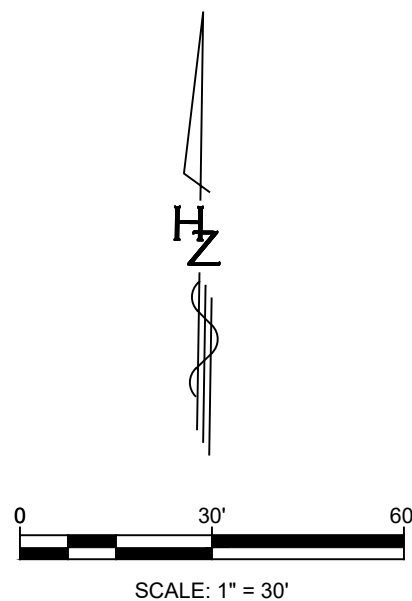
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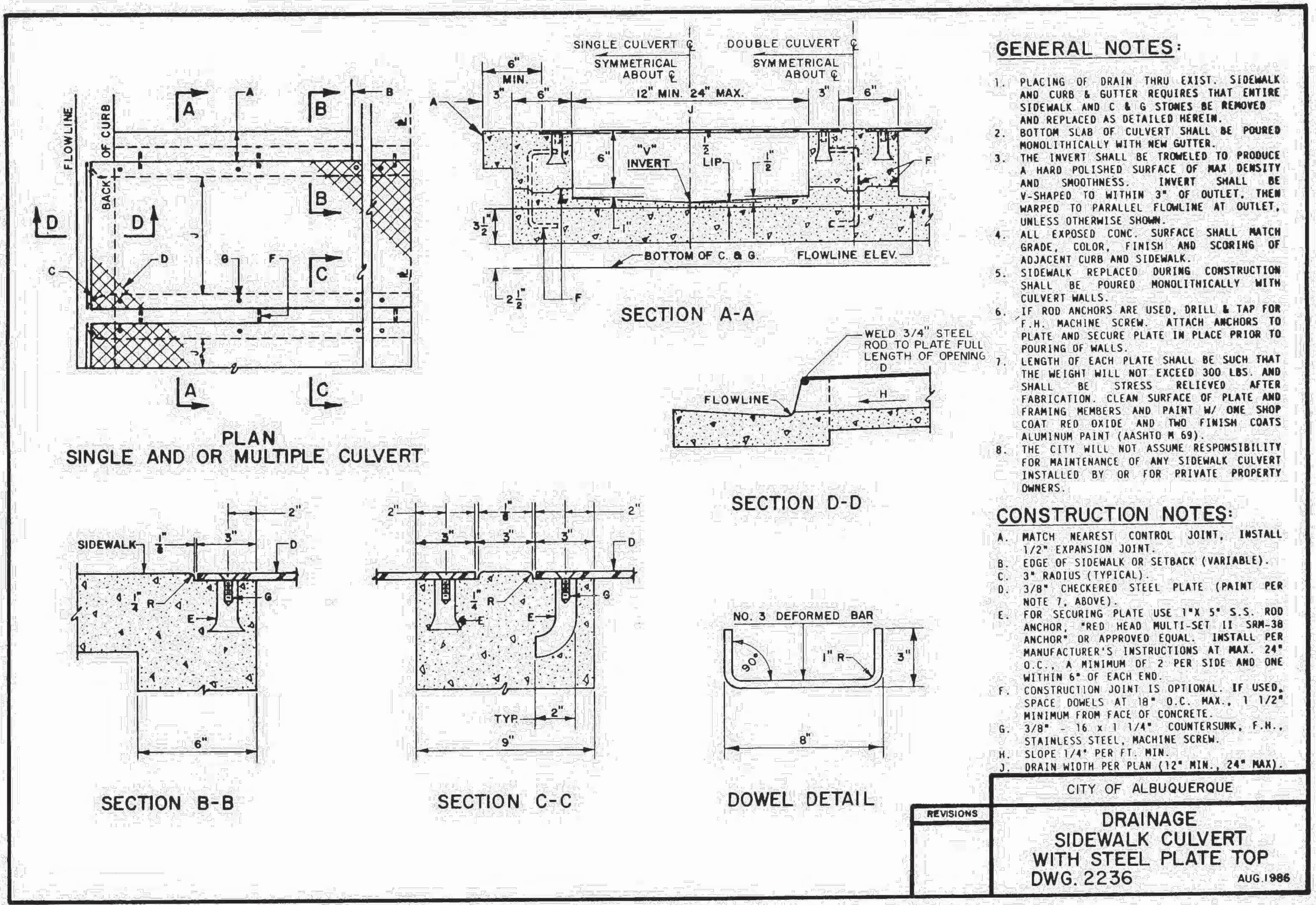
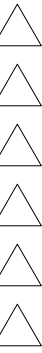
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- 24-INCH SIDEWALK CULVERTS ALONG BOTH INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE.



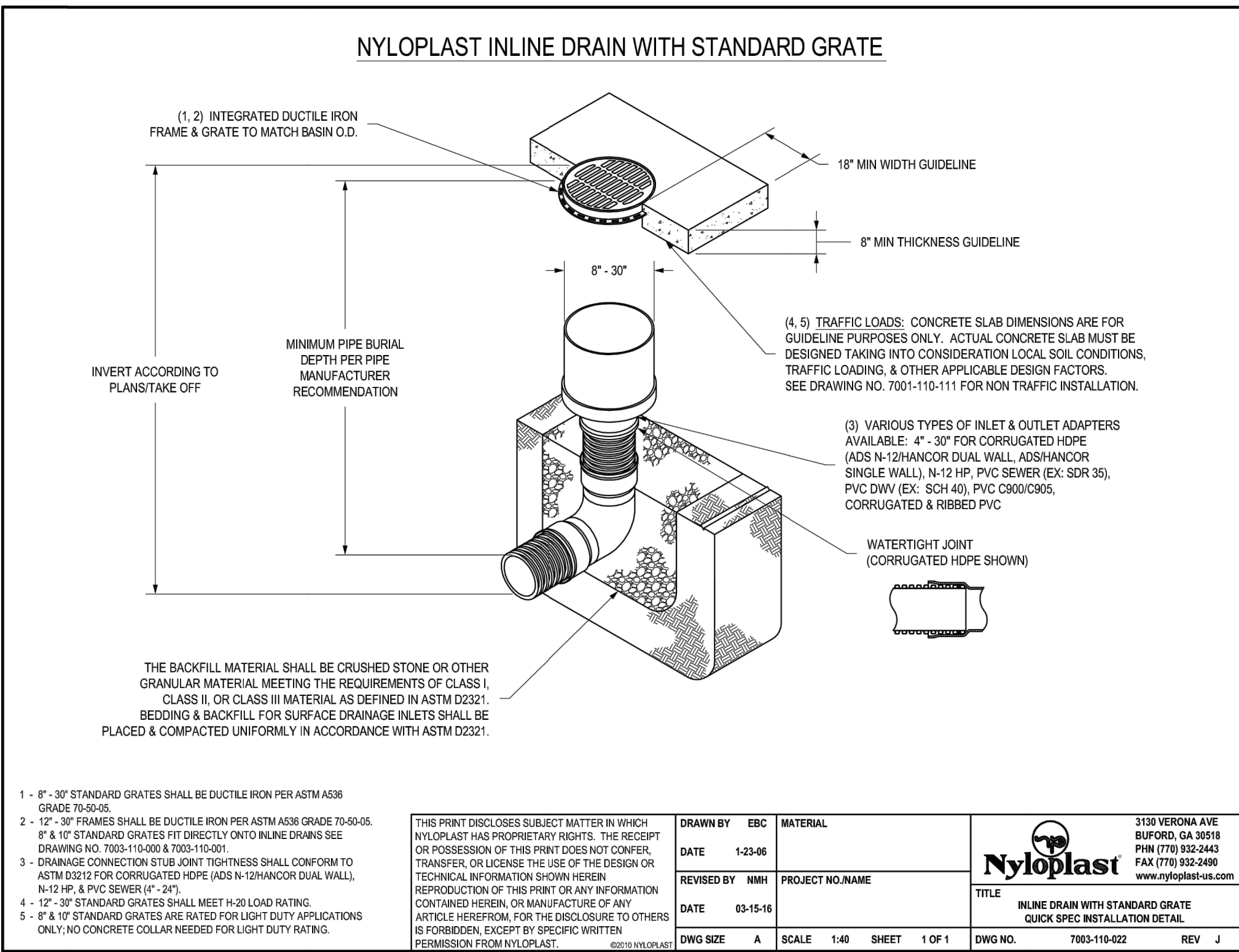
GRADING PLAN





SIDEWALK CURVET AND PLATE

SCALE: N.T.S.



COURTYARD DRAIN

SCALE: AS SHOWN

1 - 6" x 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A818 GRADE 150.05.	THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONVEY, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS BE FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY EBC	MATERIAL	3130 VERONA AVE BIRMINGHAM, AL 35206 PH: (205) 932-2443 FAX: (205) 932-2486 www.nyloplast.com
2 - 12" x 18" FRAMES SHALL BE DUCTILE IRON PER ASTM A818 GRADE 150.05.		DATE 1-23-06		
3 - 12" x 18" STANDARD GRATES SHALL MEET H-20 LOAD RATING.		REVISED BY MMH	PROJECT NO. NAME	
4 - 12" x 18" STANDARD GRATES SHALL MEET H-20 LOAD RATING.		DATE 03-15-16		
5 - 12" x 18" STANDARD GRATES SHALL MEET H-20 LOAD RATING.		DWG SIZE A	SCALE 1/4" = 1'-0"	SHEET 1 OF 1
		DWG NO. 7003-110-002	REV J	

VICINITY MAP



SHEET KEYED NOTES

1. PROPERTY LINE
2. EXISTING PUBLIC WATER LINE
3. EXISTING SANITARY SEWER, 8-INCH
4. INSTALL FIRE HYDRANT
5. INSTALL 2-INCH WATER METER AND 2-INCH DOMESTIC USE LINE.
6. INSTALL PRIVATE COMMON SANITARY SEWER LINE, 8-INCH
7. EXISTING PRIVATE SANITARY SEWER YARD LINE
8. EXISTING UNDERGROUND ELECTRIC LINE
9. NOT USED.
10. CONNECT BUILDING SAS SERVICE TO PRIVATE OUTFALL LINE.
11. BACKFLOW DEVICE FOR FIRE LINE IS WITHIN FIRE RISER ROOM.
12. INSTALL 6-INCH FIRE LINE WITH POST INDICATOR VALVE.
13. RELOCATED PUBLIC WATER LINE PER WORK ORDER.
14. REMOVE PUBLIC WATER LINE.
15. PROPOSED PRIVATE SANITARY SEWER YARD LINE.
16. INSTALL 12-INCH CORRUGATED HDPE STORM DRAIN
17. INSTALL NYLOPLAST 12-INCH CATCH BASIN WITH GRATE - COORDINATE WITH LANDSCAPE ARCHITECT.
18. INSTALL 3-INCH REUSE METER PER ABCWUA STD DRAWING 2370
19. INSTALL CLEANOUT - SEE PLUMBING PLANS FOR DETAILS
20. INSTALL 1-1/2 WATER METER AND DOMESTIC USE LINE.

LEGEND

—	PROPERTY LINE
---	EX. CURB & GUTTER
---	NEW CURB & GUTTER
---	EX. WATER LINE & WATER BOX
---	EX. SEWER LINE & MANHOLE
---	EX. STORM DRAIN & MANHOLE
---	EX. REUSE LINE
---	EX. GAS LINE
---	EX. ELECTRICAL LINE
---	NEW WATER LINE & WATER BOX
---	NEW SEWER LINE & MANHOLE
---	NEW STORM DRAIN & MANHOLE
---	NEW REUSE LINE
---	NEW FIRE HYDRANT
---	NEW SIGN
---	NEW STORM DRAIN INLET

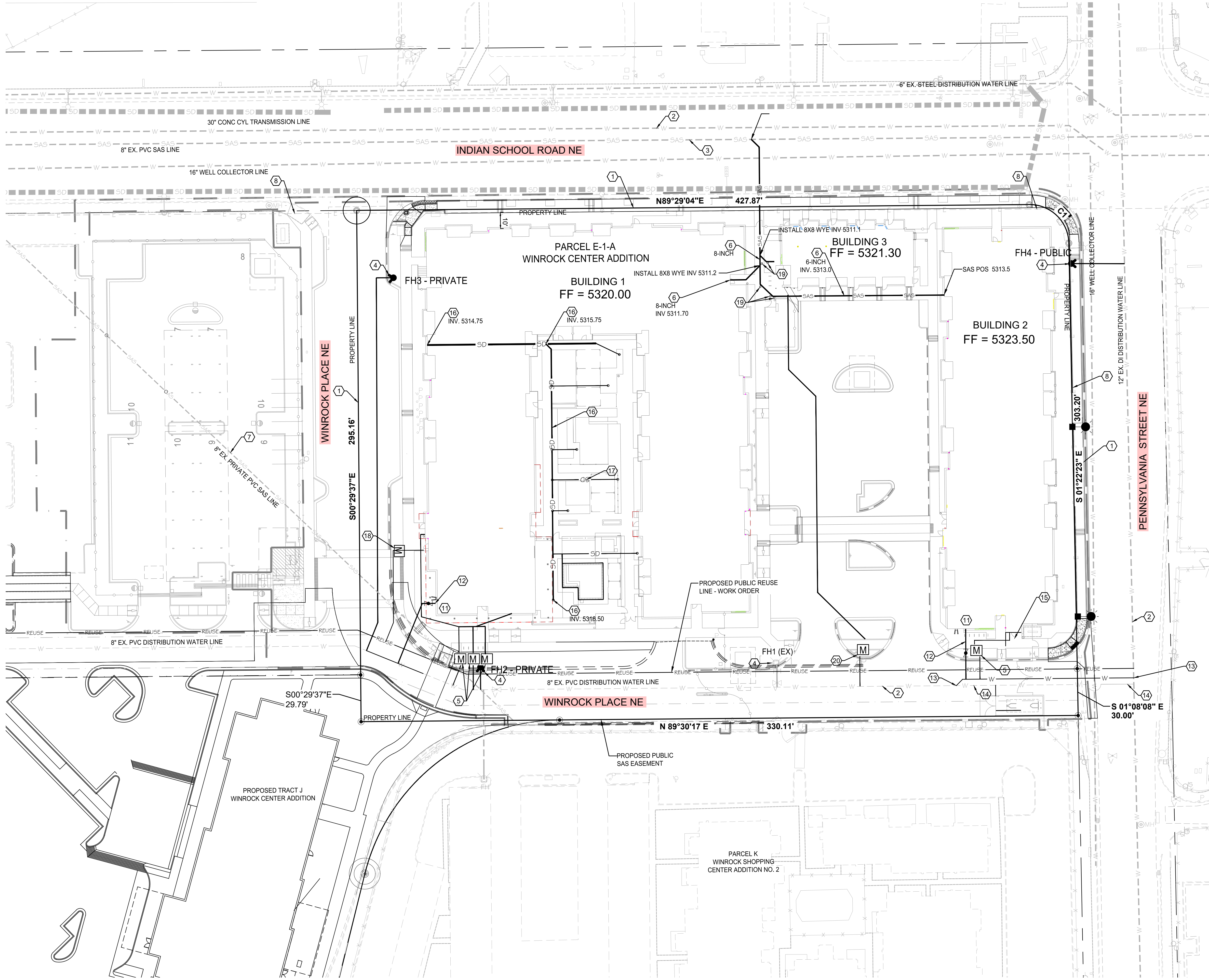
CITY WORK ORDER

WORK WITHIN CITY RIGHT OF WAY SHALL BE PERFORMED AS PART OF A CITY WORK ORDER. ROADWAY WORK ON INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE, INCLUDING DEMOLITION ON PRIVATE PROPERTY SHALL ALSO BE PART OF THE CITY WORK ORDER.

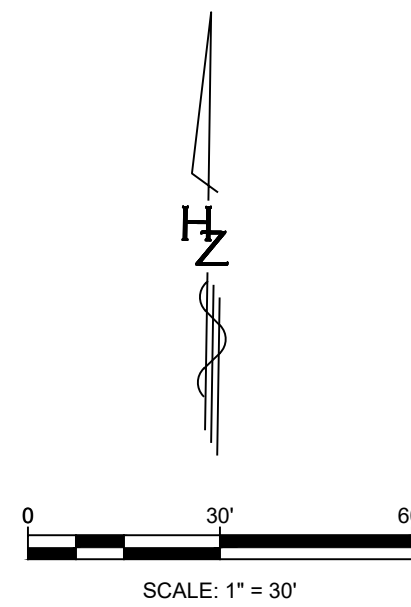
PRICING OF CITY WORK ORDER SHALL BE INCENTAL TO PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE REQUIRED.

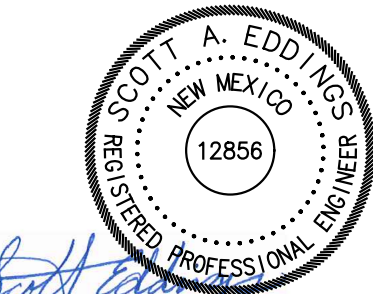
CITY WORK ORDER WILL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

1. DEMOLITION OF RIGHT TURN LANE ON PENNSYLVANIA AVE.
2. NEW CURB AND GUTTER ALONG PENNSYLVANIA AVE.
3. NEW SIDEWALK ALONG PENNSYLVANIA AVE.
4. SITE ENTRANCE AT PENNSYLVANIA AVE.
5. RELOCATION OF WATERLINE AT SOUTHERN ENTRANCE ALONG PENNSYLVANIA AVE.
6. RESTRIPIING OF PENNSYLVANIA AT INDIAN SCHOOL ROAD.
7. SITE ENTRANCE AT INDIAN SCHOOL ROAD.
8. SAS CONNECTION WITHIN INDIAN SCHOOL ROAD.
9. SIDEWALK DEMOLITION AND REPLACEMENT ALONG INDIAN SCHOOL ROAD.
10. 24-INCH SIDEWALK CULVERTS ALONG BOTH INDIAN SCHOOL ROAD AND PENNSYLVANIA AVE.

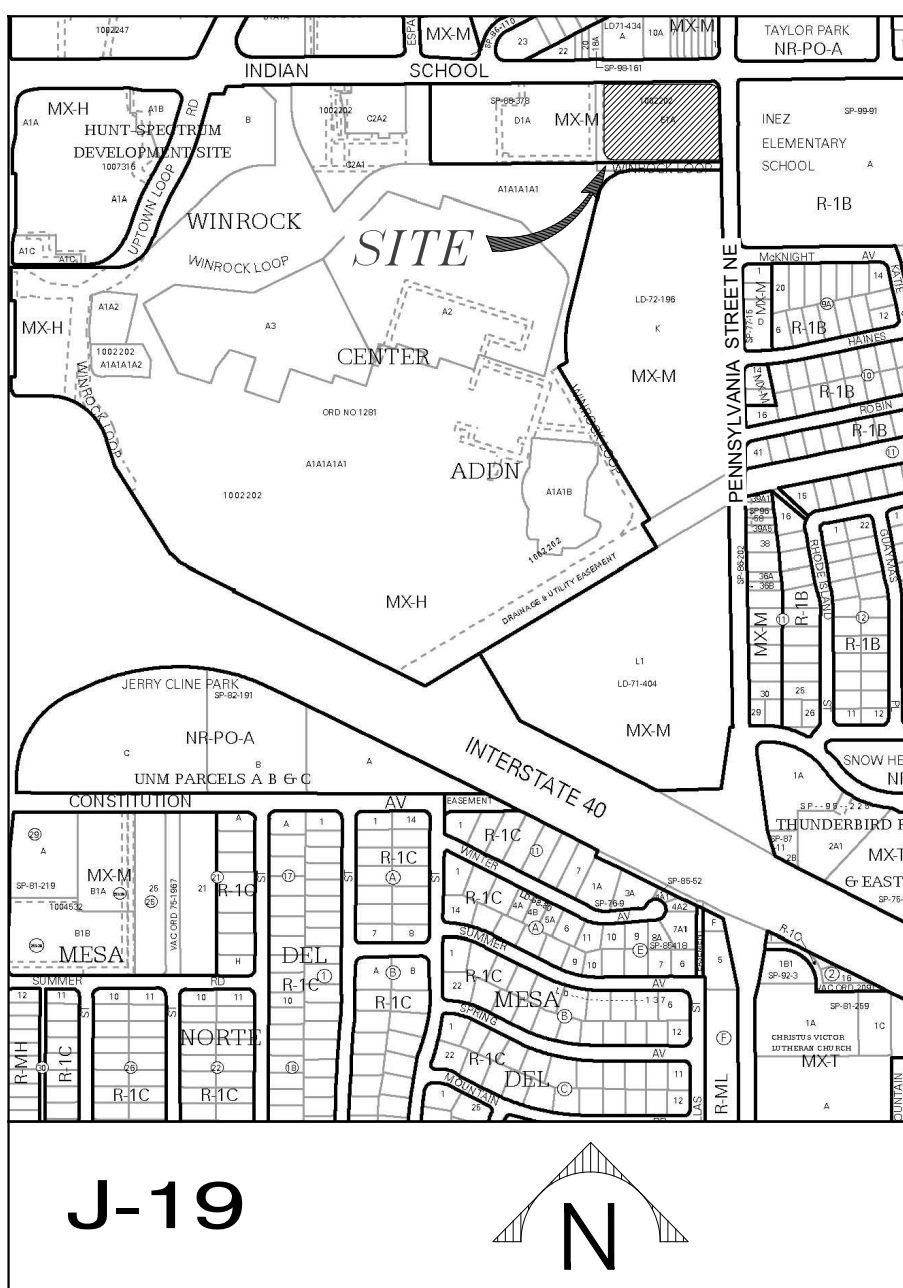


UTILITY PLAN





VICINITY MAP



STORM DRAIN DATA

PIPE	PIPE DIA	BEARING	LENGTH	SLOPE
1	12"	N00° 27' 46"W	29.29'	1.02%
2	12"	N00° 27' 46"W	66.37'	0.30%
3	12"	N00° 51' 31"W	63.48'	0.16%
4	12"	N37° 56' 34"W	4.88'	2.05%
5	12"	S89° 27' 56"W	75.51'	0.26%

LEGEND

—	PROPERTY LINE
---	EX. CURB & GUTTER
---	NEW CURB & GUTTER
---	EX. WATER LINE & WATER BOX
---	EX. SEWER LINE & MANHOLE
---	EX. STORM DRAIN & MANHOLE
---	EX. REUSE LINE
---	EX. GAS LINE
---	EX. ELECTRICAL LINE
---	NEW WATER LINE & WATER BOX
---	NEW SEWER LINE & MANHOLE
---	NEW STORM DRAIN & MANHOLE
---	NEW REUSE LINE
---	NEW FIRE HYDRANT
---	NEW SIGN
---	NEW STORM DRAIN INLET

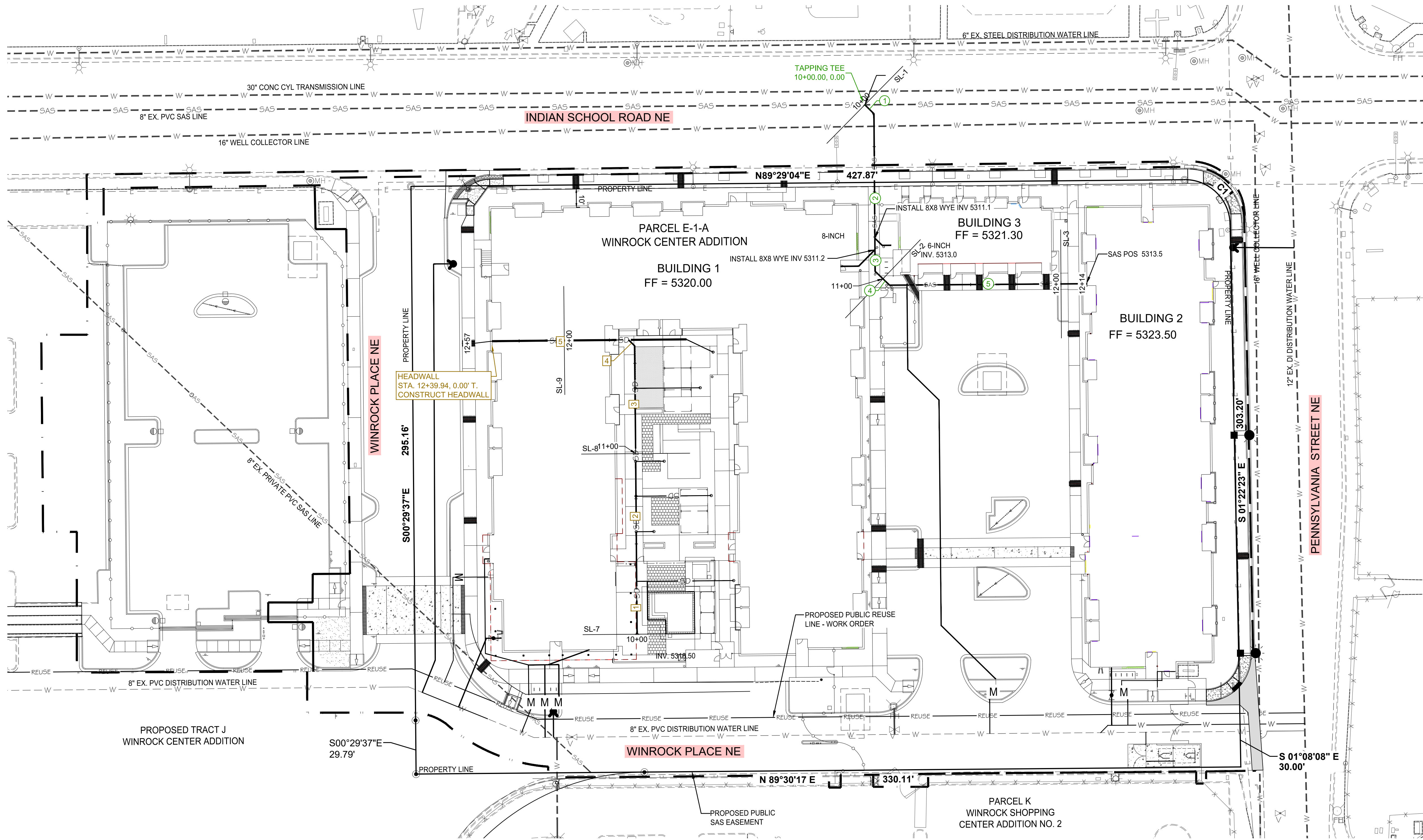
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STORM DRAIN

