

DEVELOPMENT REVIEW BOARD SUPPLEMENTAL SUBMITTAL

(Deadline is Friday at noon unless noted on DRB calendar – late submittals will not be accepted unless approved by the DRB)

PROJECT NO	
Application No	

TO:

____ Planning Department/Chair

- ____ Hydrology
- ____ Transportation Development
- ____ ABCWUA
- ____ Code Enforcement
- ____ Parks & Rec

*(Please attach this sheet with each collated set for each board member)

NOTE: ELECTRONIC VERSION (ie disk, thumbdrive) is Required. Submittal will not be accepted without.

DRB SCHEDULED HEARING DATE: _______ HEARING DATE OF DEFERRAL: ______

SUBMITTAL DESCRIPTION:

CONTACT NAME: _____

TELEPHONE: ______EMAIL: _____



March 11, 2022

Jay Rodenbeck Planning Department City of Albuquerque rrodenbeck@cabq.gov

Project Location:Whataburger – Volcano Rd. & 98th St.DRB Project Number:PR-2019-002402

Bowman Consulting is in receipt of the comments dated January 12, 2022, issued by City of Albuquerque for the Whataburger restaurant at NEC of Volcano Rd. & 98th St, Albuquerque, NM 87121. Please see below for the responses to the comments:

Planning Department

Comment 3: The Solid Waste signature must be obtained on the Site Plans prior to final sign-off from Planning.

Response: Included in this resubmittal is the approved site plan from the solid waste department.

- Comment 8: Per 5-2(D) of the IDO regarding design considerations to meet the requirements of site design to respond to climate and geographic features, trees placement is recommended to be in combinations of two-thirds deciduous to one-third evergreen, and trees selection should have three or more tree types to avoid loss of species due to disease. On the Landscape Plan, there is a lack of variation of tree species along the boundaries of the subject property/site fronting 98th Street NW and Volcano Road NW in conflict with the noted design considerations. In addition, the landscaping plan shows one shrub being used all along 98th Street and/or Volcano Road. Please recheck these areas on the landscape plan to verify that the landscaping plan is workable and aesthetically pleasing. Response: Comment noted. Landscape plan has been revised to be workable and aesthetically pleasing per recommendations.
- Comment 9: There appears to be a drainage pond in the northeast portion of the site. How will this be landscaped? Some new standards near completion could be applicable. **Response: The two drainage ponds along the eastern drive entrance have been landscaped per City requirements set in the IDO and DPM.**
- Comment 10: The Landscape Plan must be sealed and signed by a Landscape Architect registered in the State of New Mexico.
 Response: Landscape plan is signed and sealed by Landscape architect registered in the state of New Mexico.

Comment 11: These are preliminary Planning comments, and there could be additional and/or revised Planning comments on this application.
Response: Comment noted. Thank you

If you have any questions or require additional information, please call me at (972) 497-2992, or send an email to kaddo@bowman.com.

Thank you,

Lattaks

Kofi Addo Team Lead Bowman





March 10, 2022

Jeanne Wolfenbarger, P.E. City of Albuquerque jwolfenbarger@cabq.gov (505) 924-3991

Project Location:Whataburger – Volcano Rd. & 98th St.DRB Project Number:PR-2019-002402

Bowman Consulting is in receipt of the comments dated January 11, 2022, issued by City of Albuquerque for the Whataburger restaurant at NEC of Volcano Rd. & 98th St, Albuquerque, NM 87121. Please see below for the responses to the comments:

Transportation Development - Engineering Comments

- Comment 1: Reference work order number for the accessway on the site plan. The accessway shall be in place prior to Certificate of Occupancy.
 Response: Comment noted. The accessway is under design by others and once a work order number is available it will be referenced on the site plan.
- Comment 2:Reflect dimensioning of private roadways surrounding the site and adjacent proposed
trail.Response: All off-site improvements will be designed and constructed by others. The
proposed accessways and roadways have been dimensioned accordingly.
- Comment 3: Reflect traffic queue accurately at pick-up window. Wouldn't the cars be expected to merge at the queuing window? If there is an area where cars are not expected wait in the queue, provide striping for clarification. In addition to meeting IDO requirements for drive-thrus, provide a queuing analysis for a typical Whataburger.
 Response: Both drive-thru lanes are intended to be used by customers to receive orders at the window. Outside lane orders will be fulfilled by a Whataburger employee. Queuing analysis has been included with this resubmittal.
- **Comment 4:** The order window should allow more queuing to ensure that vehicles do not back up into parking aisle or adjacent accessway. Propose adjustment based upon expected operations as result of the queuing analysis.

Response: The queuing analysis provided is based upon a similar layout Whataburger store #1096 location 20314 TX-46 W, Spring Branch, TX 78070. According to the analysis the queuing provided will be sufficient to accommodate customers during peak time.

- Comment 5: For the one-way aisle within the drive-thru, provide an additional "Do Not Enter" sign at the egress and directional arrows on the pavement. Also, add a One-way sign.
 Response: One way signage and directional arrows on pavement have been added to the site plan.
- **Comment 6:** A sufficient throat length shall be provided to the public right-of-way per DPM requirements based on proposed building square footage. (There is also concern about the proximity of the drive off the private roadway to 98th Street and the conflicting movements between vehicles exiting the site versus cars entering the subdivision from 98th Street.)

Response: The drive entrance off the private roadway to 98th street has been revised to increase the throat length depth to allow for additional vehicle queuing see updated site plan.

Comment 7: For the handicapped ramp at the accessible aisle, ensure that there is a minimum 4-foot dimension between the wing of the ramp and the corner of the building.

Response: A dimension label has been added showing the

- **Comment 8:** Show motorcycle parking signage in the details. **Response: Accompanying the site plan resubmittal is a construction detail sheet showing motorcycle parking signage.**
- **Comment 9:** Provide a civil details sheet that includes details for sidewalk and ramps that match the type of ramp that is graphically displayed on the plan; on the site plan itself, reference exact curb ramp detail. Indicate a maximum 2% cross-slope on the sidewalk detail. Also, on the site plan, indicate which type of curb shall be used. **Response: Accompanying the site plan resubmittal is a construction detail sheet showing sidewalk, ADA ramp and curb details. Site plan has also been labeled to show maximum 2% slopes.**
- Comment 10: On 98th Street, use a clear sight triangle for intersection sight distance to be sure that there are no conflicts with the proposed landscaping. For the other sight triangles, show these outside of the pavement area per the DPM graphics.
 Response: Sight triangles have been revised to show no conflict with proposed landscaping.
- **Comment 11:** Place the text, "No Parking" on the back of the accessible aisles. **Response: "No Parking" text have been added to accessible aisles.**



If you have any questions or require additional information, please call me at (972) 497-2992, or send an email to kaddo@bowman.com.

Thank you,

Farks ha

Kofi Addo Team Lead Bowman





March 10, 2022

Renee C. Brissette, P.E. CFM City of Albuquerque, Planning department Senior Engineer, Hydrology <u>rbrissette@cabq.gov</u> (505)924-3995

Project Location:Whataburger – Volcano Rd. & 98th St.DRB Project Number:PR-2019-002402, Hydrology File: K09D048A

Bowman Consulting is in receipt of the comments dated March 7, 2022, issued by City of Albuquerque for the Whataburger restaurant at NEC of Volcano Rd. & 98th St, Albuquerque, NM 87121. Please see below for the responses to the comments:

Transportation Development - Engineering Comments

- Comment 1: Sheet C3.0 Site Plan is not needed for review and approval. There is information on this sheet that needs to be on the Grading & Drainage Plan. See Below. Response: Comment noted. Thank you.
- Comment 2: Sheet C6.0 Utility Plan is not needed for review and approval. Response: Comment noted. Thank you.
- Comment 3: Sheet C4.0

The Per the Development Process Manual (DPM), the following must be on the Grading & Drainage Plan. These are items missing or on other another sheet but must be placed on the G&D.

- Please provide an engineer's stamp with a signature and date.
 Response: An Engineer's stamp and dated signature have been added to the grading and drainage plan.
- B. Please use 1" = 20' for the scale.
 Response: The plan has been revised to use a 1" = 20' scale.
- C. Please provide a Vicinity Map. Typically, this is the Zone Atlas. This can be downloaded in pdf format from the City of Albuquerque's website.
 Response: A vicinity map has been included in with this resubmittal.
- D. Please provide the FIRM Map and flood plain note with effective date.
 Response: A FIRM map has been included with this resubmittal. A flood plain note has also been added on the grading and drainage plan.

- Comment 4: Please use the procedure for 40 acre and smaller basins as outlined in Development Process Manual (DPM) Article 6-2(a). Please provide both the existing conditions and proposed conditions for the 100 year-6-hour storm event. Response: Drainage calculations have been included in the existing and proposed drainage area map plan sheets as part of this resubmittal.
- **Comment 5:** For trash enclosures serving food service developments, demonstrate control of liquids from dumpster areas per DPM by containing runoff from the dumpster area, preventing outside drainage from entering the dumpster area, and discharging to the sanitary sewer. I see the discharge into the sanitary sewer, but it does appear that there is some outside drainage going into the enclosure. Also, please show the inlet and label "See Utility Plan for connection to sanitary sewer."

Response: The grading plan has been revised to contain the discharge within the trash enclosure. Required utility connection note has been added in the grading and drainage plan

- Comment 6: This site only needs 1,677 CF of Stormwater quality ponds. You have provided 2,641 CF but one of the ponds has sanitary sewer and water lines which typically avoided when possible and Albuquerque Bernalillo County Water Utility Authority does not as well. I suggest that this get smaller to avoid the lines or coordinate with the overall development engineer to see if the connection can be relocated out of the SWQ pond area.to provide the required SWQ ponds and still meet the conditions for parking. Response: The pond volumes have been revised to contain 1,870 CF. Additionally, utilities have been revised and are now outside the pond area.
- **Comment 7:** Please number the ponds and provide the volume provided for each pond. Also, please provide a 2 ft curb cut showing how the sheet flow gets into each pond and provide a 2 ft curb cut on the side that shows how the pond is discharged into the access drive (typically on the downhill side of the pond) and ultimately draining to the future inlet on Volcano Rd.

Response: Pond labels have been added showing pond number and volume. A 2ft curb cut has been added to both ends of the ponds.

- Comment 8: Please provide the weir calculations, per DPM Article 6-16(A), for the curb cuts. A coefficient of 2.7 is typically used for the weir equation Q = CLH2/3.
 Response: Weir calculations for the curb cuts have been added to the grading and drainage plan.
- Comment 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.
 Response: Comment noted. Thank you.



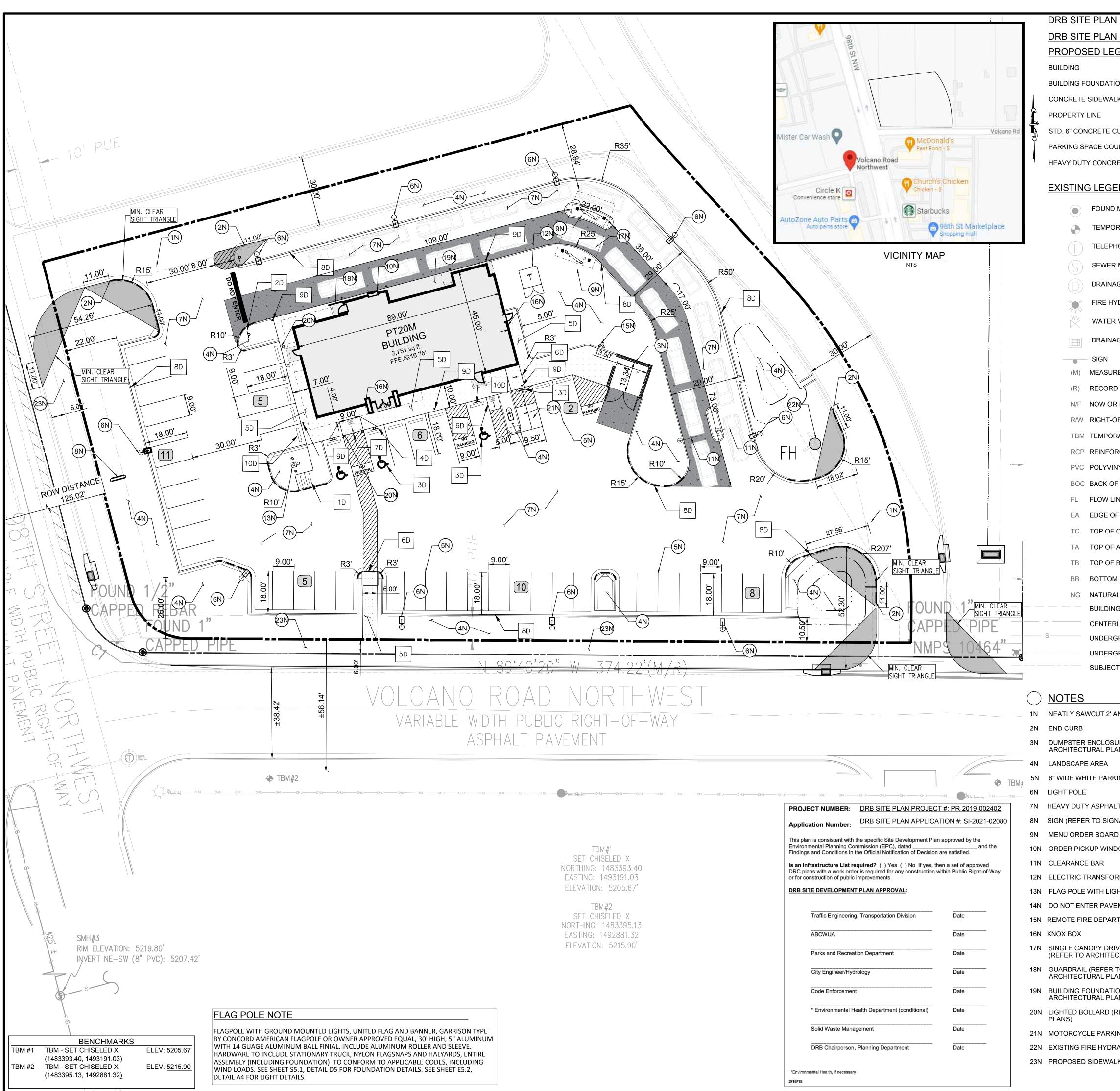
If you have any questions or require additional information, please call me at (972) 497-2992, or send an email to kaddo@bowman.com.

Thank you,

Laterarko

Kofi Addo Team Lead Bowman





HEAVY DUTY CONCRE EXISTING LEGE FOUND N TEMPOR, TELEPHC SEWER N DRAINAG FIRE HYD O WATER DRAINAG ----- SIGN (M) MEASURE (R) RECORD I N/F NOW OR F R/W RIGHT-OF TBM TEMPORA RCP REINFOR PVC POLYVINY BOC BACK OF

FL FLOW LIN EA EDGE OF TC TOP OF C TA TOP OF A TB TOP OF B BB BOTTOM NG NATURAL BUILDING CENTERL UNDERGF UNDERGF SUBJECT

<u>NOTES</u>

1N NEATLY SAWCUT 2' AN 2N END CURB 3N DUMPSTER ENCLOSUF ARCHITECTURAL PLAN 4N LANDSCAPE AREA 5N 6" WIDE WHITE PARKIN 6N LIGHT POLE 7N HEAVY DUTY ASPHALT 8N SIGN (REFER TO SIGNA 9N MENU ORDER BOARD 10N ORDER PICKUP WINDO 11N CLEARANCE BAR 12N ELECTRIC TRANSFOR 13N FLAG POLE WITH LIGH 14N DO NOT ENTER PAVEM

- 15N REMOTE FIRE DEPART 16N KNOX BOX 17N SINGLE CANOPY DRIV (REFER TO ARCHITEC
- 18N GUARDRAIL (REFER T ARCHITECTÙRAL PLAN
- 19N BUILDING FOUNDATIO ARCHITECTURAL PLAN
- 20N LIGHTED BOLLARD (RE PLANS)
- 21N MOTORCYCLE PARKIN
- 22N EXISTING FIRE HYDRA
- 23N PROPOSED SIDEWALK

PROJECT #: PR-2019-	002402				
APPLICATION #: SI-20				U	2990 4062 .com
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URB INT 1	SCALE: 1 INCH = 20 FT			wman C	
ETE				© Bo	y Dr.,
	SITE DATA & AREA CALCULATIONS				5601 Democracy Dr., Ste 205 Plano, Texas 75024
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MONUMENT (AS NOTED)	FLOOD ZONE CLASSIFICATION; ZONE 'X'			U	5601 Ste J
RARY BENCHMARK	FEMA PANEL: 35001C0328J DATE: 11/04/2016				
ONE MANHOLE	SITE AREA TOTAL: 63496 SF (1.457 AC) IMPERVIOUS AREA: 48,168 SF (1.106 AC)		DATE		
MANHOLE	PERVIOUS AREA OPEN SPACE:15,327 SF (0.351 AC)OPEN SPACE PERCENTAGE:24.09%	╞	_		
GE MANHOLE	FLOOR AREA RATIO BLDG/SITE: 5.91%				
DRANT	PARKING DATA SPACE REQUIRED: 8 SPACES PER 1000 SF GFA = 31 SPACES				
VALVE	SPACES PROVIDED: 44 REGULAR				
GE INLET	<u>3</u> <u>ADA</u> 47 TOTAL				
	TYPICAL DIMENSIONS: 9' WIDTH 18' DEPTH	SNG	NOI		
ED/CALCULATED DIMENSION	MOTORCYCLE:	REVISIONS	SCRIPTION		
DIMENSION	SPACE REQUIRED:2 SPACES PER 26-50 VEHICLE SPACES = 2SPACE PROVIDED:2 SPACES	BE	DES		
FORMERLY					
F-WAY ARY BENCHMARK	SPACE REQUIRED: 3 SPACES OR 10% OF VEHICLE SPACES WHICHEVER IS GREATER = 5 SPACES SPACE PROVIDED: 5 SPACES				
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CURB	ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB, PROPERTY LINE OR CENTERLINE OF STRIPING UNLESS OTHERWISE NOTED. ALL EXISTING EASEMENTS, RIGHTS-OF-WAY, AND LOT LINES MAY NOT BE SHOWN. REFER	-			
NE	TO THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY <u>BLEW_AND</u> ASSOCIATES,PA, DATED NOVEMBER 04, 2021, FOR COMPLETE BOUNDARY INFORMATION AND ASSOCIATED		REVISION	3	
ASPHALT 3.	ENCUMBRANCES. A PRE-CONSTRUCTION MEETING WITH CITY ENGINEER SHALL BE HELD PRIOR TO		R R		
CONCRETE 4.	CONSTRUCTION COMMENCEMENT. THE <u>CITY OF ALBUQUERQUE</u> SHALL BE GIVEN AT LEAST 48 HOURS NOTICE PRIOR TO PERFORMING ANY INSPECTIONS.				
	TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE NMDOT DESIGN STANDARDS AND THE LATEST MANUAL ON				
	UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL MECHANICAL EQUIPMENT TO BE ROOF MOUNTED AND SCREENED FROM HE STREET.				
OF BANK 7.	CONTRACTOR TO PROVIDE AS-BUILTS OF ALL IMPROVEMENTS TO THE SITE. AS-BUILTS TO INCLUDE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, PIPES, FITTINGS, STRUCTURES, AND OTHER				i l
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ROUND SEWER LINE	TO MEET CURRENT ADA REQUIREMENTS. BUILDING SETBACK DIMENSIONS MEASURED TO OUTERMOST ARCHITECTURAL FEATURE.				
	CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS. ALL CURB RADII ARE 3' UNLESS SHOWN OTHERWISE.			ET	CF
11.	PRIOR TO INSTALLATION, CONTRACTOR MUST VERIFY LOCATIONS OF LIGHT POLES, LANDSCAPING AND UTILITIES.			U,	871
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T PAVING	5D CONCRETE SIDEWALK (PER COABQ STD DWG NO. 2430.				98
IAGE PLANS)	SEE SHEET C7.1)				
AND SPEAKER	6D CURB RAMP (PER COABQ DETAIL STD DWG NO. 2440 & 2441. SEE SHEET C7.1)				N L
OW	7D FLARED RAMP				4
RMER	8D STANDARD CURB & GUTTER (PER COABQ DETAIL STD DWG NO. 2415A. SEE SHEET C7.1)				
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ANT K BY OTHERS	Know what's below.	JOB		BB 070426-	KAN 01-001
	Call before you dig.		-	SHEET	

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Bowman

March 11, 2022

Blaine Carter, P.E. Albuquerque Bernalillo County Water Authority (505) 415-9188

Project Location:Whataburger – Volcano Rd. & 98th St.DRB Project Number:PR-2019-002402

Bowman Consulting is in receipt of the comments dated January 12, 2022, issued by City of Albuquerque for the Whataburger restaurant at NEC of Volcano Rd. & 98th St, Albuquerque, NM 87121. Please see below for the responses to the comments:

Utility Development Section

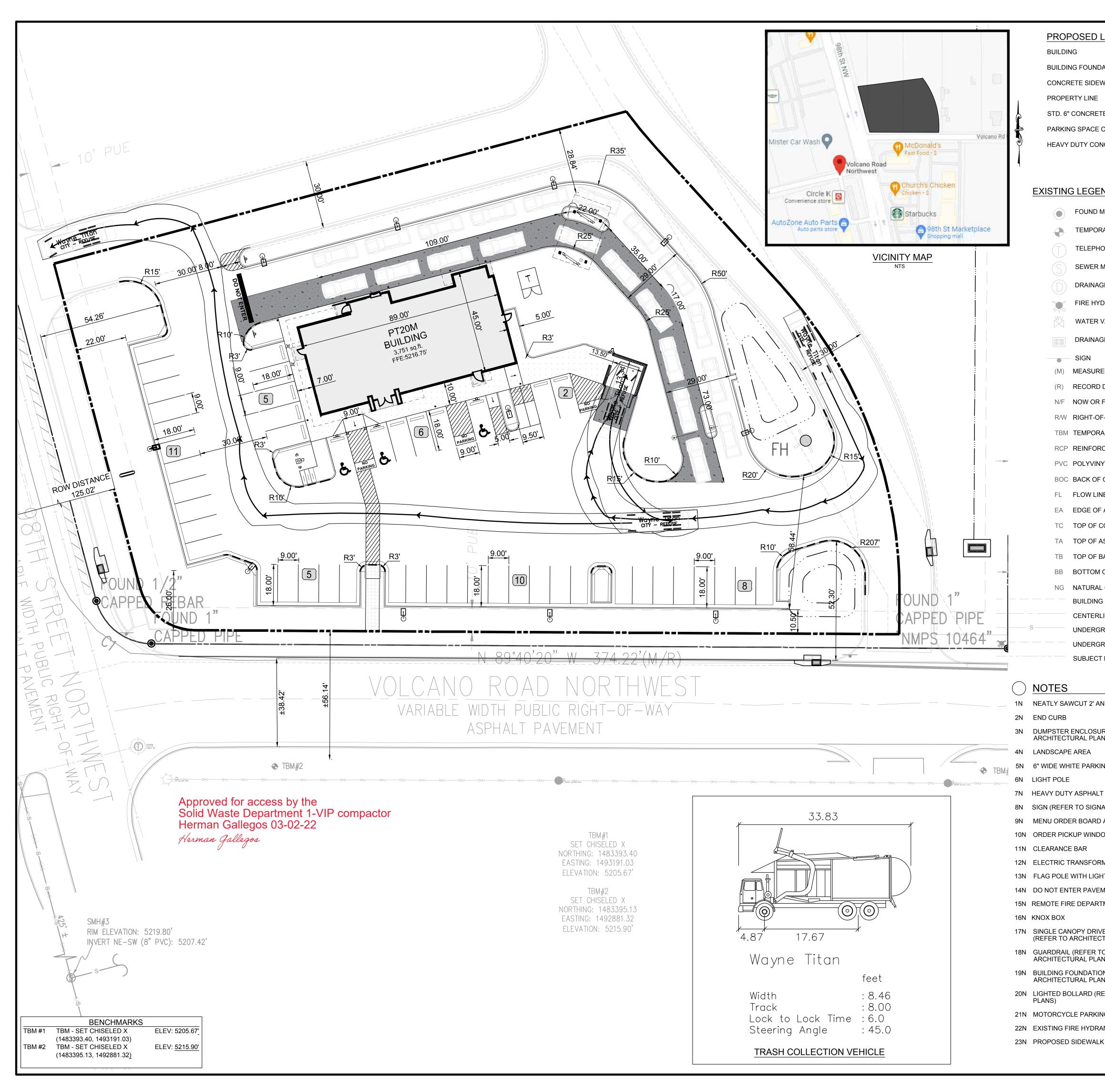
- **Comment 1:** Availability Statement #211027 covers this site and provides the conditions for service. **Response: Comment noted. Thank you**
- Comment 2: This project is within the adopted service area. Response: Comment noted. Thank you
- Comment 3: Pro rata is not owed for this property. Response: Comment noted. Thank you
- Comment 4a: The service line for the irrigation meter shall go directly to the public main. There should not be any branches from the domestic service to accommodate an irrigation meter.
 Response: Irrigation service has been revised to branch off after the domestic meter as recommended by City Engineer Blaine Carter.
- Comment 4b: Consider revising the blocks from the subdivision utility plan, it appears to show a single meter in this location.
 Response: Comment noted. Thank you
- Comment 4c: Please coordinate with the subdivider so that your proposed water connection stubs can be provided prior to pavement.
 Response: Comment noted. Thank you
- Comment 5: The WUA understands that the required adjacent infrastructure is part of the subdivision infrastructure list and subdivision IIA. Response: Comment noted. Thank you

If you have any questions or require additional information, please call me at (972) 497-2992, or send an email to kaddo@bowman.com.

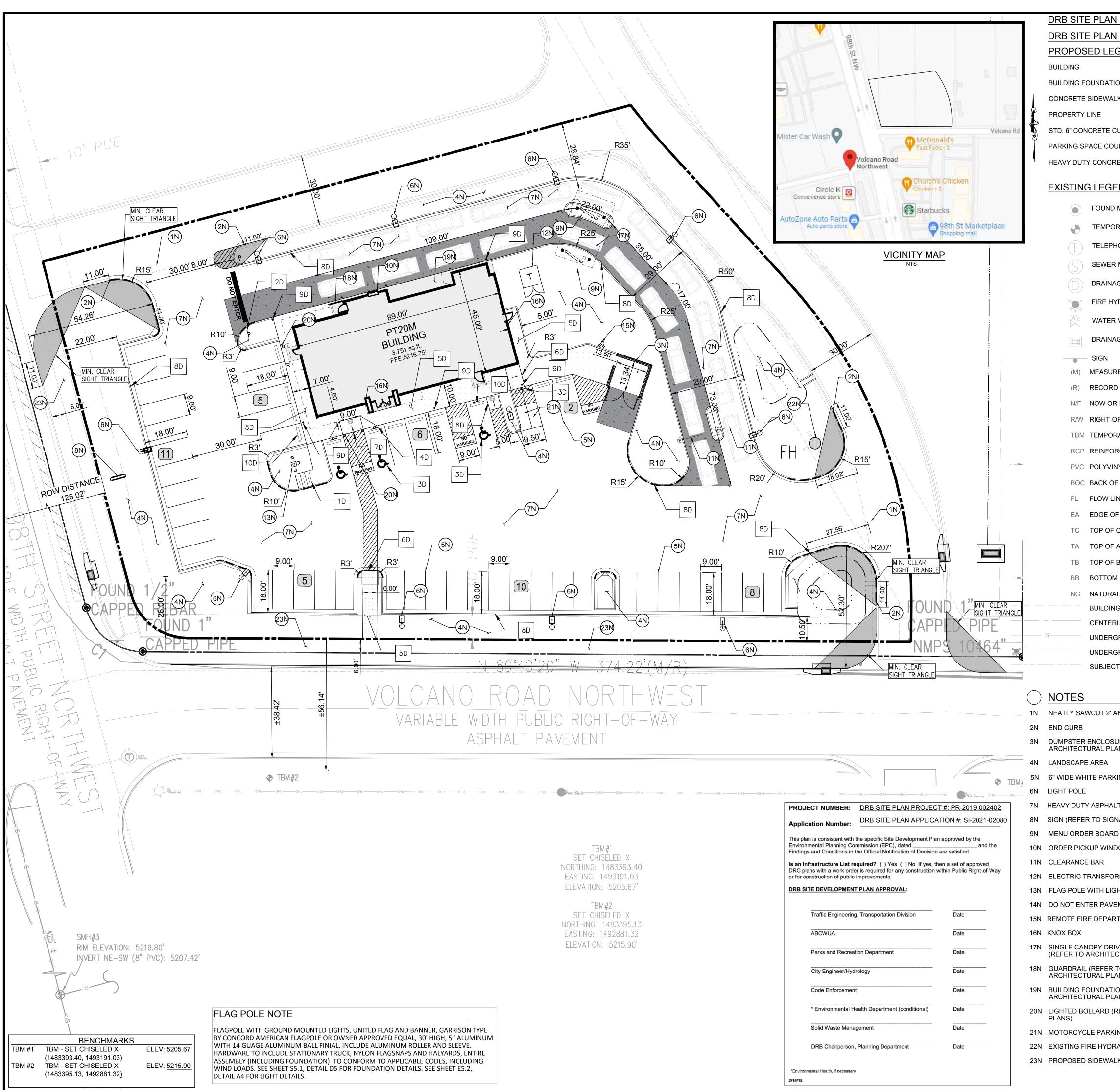
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Thank you, Kofi Addo Team Lead Bowman





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	7D	FLARED RAMP						
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O NS)	12D	STORM INLET (PER COABQ I SHEET C7.2)	DETAIL STD DWG NO. 2201. SEE					
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HEAVY DUTY CONCRE EXISTING LEGE FOUND N TEMPOR, TELEPHC SEWER N DRAINAG FIRE HYD O WATER DRAINAG ----- SIGN (M) MEASURE (R) RECORD I N/F NOW OR F R/W RIGHT-OF TBM TEMPORA RCP REINFOR PVC POLYVINY BOC BACK OF

FL FLOW LIN EA EDGE OF TC TOP OF C TA TOP OF A TB TOP OF B BB BOTTOM NG NATURAL BUILDING CENTERL UNDERGF UNDERGF SUBJECT

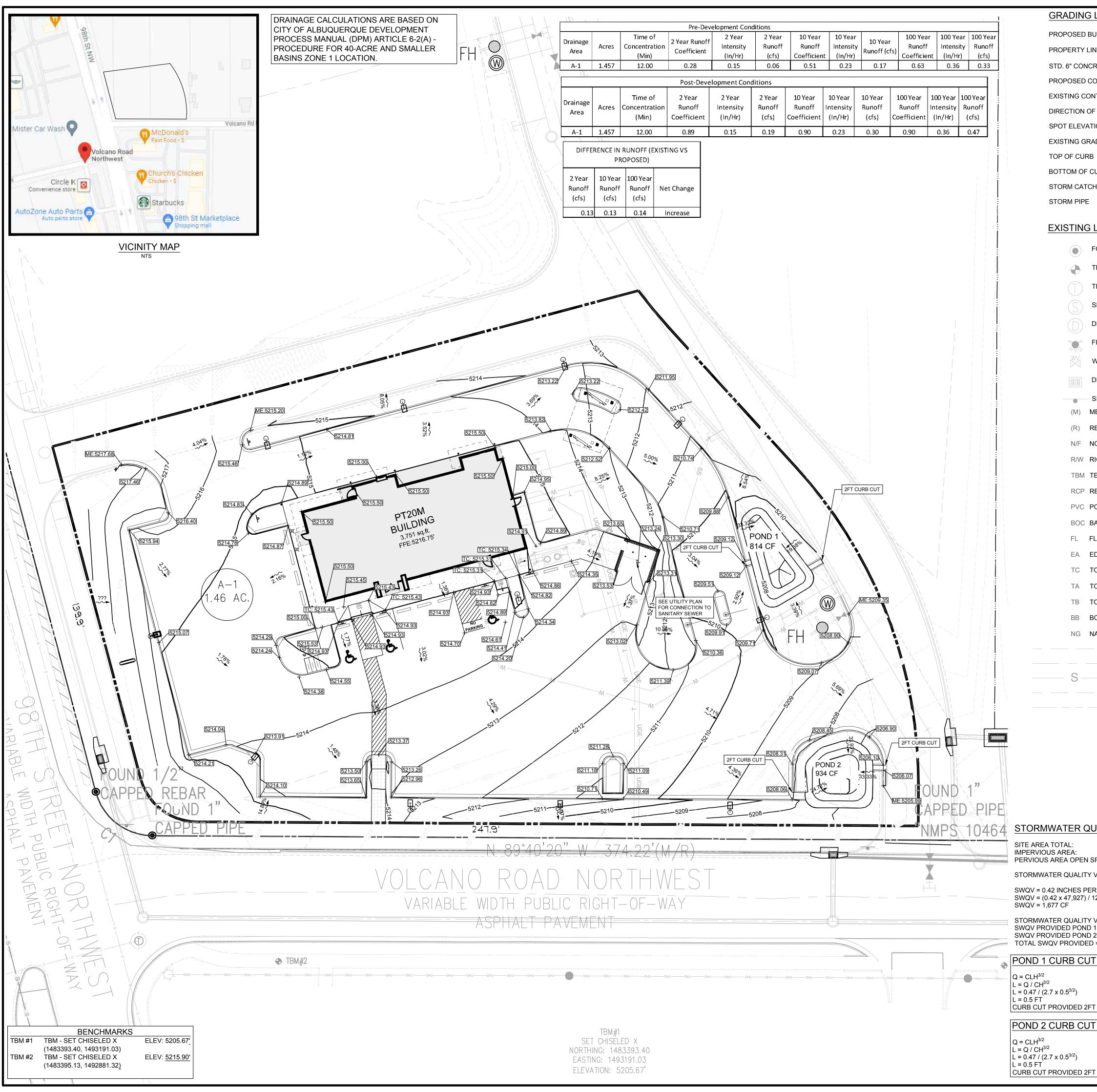
<u>NOTES</u>

1N NEATLY SAWCUT 2' AN 2N END CURB 3N DUMPSTER ENCLOSUF ARCHITECTURAL PLAN 4N LANDSCAPE AREA 5N 6" WIDE WHITE PARKIN 6N LIGHT POLE 7N HEAVY DUTY ASPHALT 8N SIGN (REFER TO SIGNA 9N MENU ORDER BOARD 10N ORDER PICKUP WINDO 11N CLEARANCE BAR 12N ELECTRIC TRANSFOR 13N FLAG POLE WITH LIGH 14N DO NOT ENTER PAVEM

- 15N REMOTE FIRE DEPART 16N KNOX BOX 17N SINGLE CANOPY DRIV (REFER TO ARCHITEC 18N GUARDRAIL (REFER T ARCHITECTÙRAL PLAN
- 19N BUILDING FOUNDATIO ARCHITECTURAL PLAN
- 20N LIGHTED BOLLARD (RE PLANS)
- 21N MOTORCYCLE PARKIN
- 22N EXISTING FIRE HYDRA 23N PROPOSED SIDEWALK

PROJECT #: PR-2019-	002402				
APPLICATION #: SI-20	21-02080			J	ne: (972) 497-2990 ax: (512) 327-4062 www.bowman.com
GEND				Ζ	(972) 49 (512) 32 w.bowma
				—	Phone: (9 Fax: (5 www.
N LIMITS				Group, Ltd.	Pho
<u> </u>				Iting Gro	
URB				© Bowman Consulting	
NT 1	SCALE: 1 INCH = 20 FT		\leq	Bowmai	÷
ETE	SITE DATA & AREA CALCULATIONS		A		5601 Democracy Dr., Ste 205 Plano, Texas 75024
ND	CURRENT ZONING CLASSIFICATION: NR-BP			0	emocr exas
MONUMENT (AS NOTED)	(BUSINESS PARK) CURRENT LOCAL JURISDICTION: CITY OF ALBUQUERQUE				501 Do te 205 ano, T
RARY BENCHMARK	FLOOD ZONE CLASSIFICATION; ZONE 'X' FEMA PANEL: 35001C0328J				32 <u>22</u>
ONE MANHOLE	DATE: 11/04/2016 SITE AREA TOTAL: 63496 SF (1.457 AC)		DATE		
MANHOLE	IMPERVIOUS AREA:48,168 SF (1.106 AC)PERVIOUS AREA OPEN SPACE:15,327 SF (0.351 AC)		⊿ D		
GE MANHOLE	OPEN SPACE PERCENTAGE:24.09%FLOOR AREA RATIO BLDG/SITE:5.91%				
DRANT	PARKING DATA				
VALVE	SPACE REQUIRED: 8 SPACES PER 1000 SF GFA = 31 SPACES				
GE INLET	SPACES PROVIDED: 44 REGULAR <u>3</u> <u>ADA</u> 47 TOTAL				
	TYPICAL DIMENSIONS: 9' WIDTH	ស	Z		
ED/CALCULATED DIMENSION	18' DEPTH	REVISIONS	ESCRIPTION		
DIMENSION	MOTORCYCLE: SPACE REQUIRED: 2 SPACES PER 26-50 VEHICLE SPACES = 2 SPACE PROVIDED: 2 SPACES	REVI	DESC		
FORMERLY	BICYCLE:				
F-WAY	SPACE REQUIRED: 3 SPACES OR 10% OF VEHICLE SPACES WHICHEVER IS GREATER = 5 SPACES				
	SPACE PROVIDED: 5 SPACES				
CED CONCRETE PIPE	GENERAL SITE NOTES				
1. CURB	ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB, PROPERTY LINE OR CENTERLINE OF STRIPING UNLESS OTHERWISE NOTED.		_		
Z. NE	ALL EXISTING EASEMENTS, RIGHTS-OF-WAY, AND LOT LINES MAY NOT BE SHOWN. REFER TO THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY <u>BLEW AND ASSOCIATES,PA</u> , DATED NOVEMBER 04, 2021, FOR COMPLETE BOUNDARY INFORMATION AND ASSOCIATED		REVISION	3	
ASPHALT 3.	ENCUMBRANCES. A PRE-CONSTRUCTION MEETING WITH CITY ENGINEER SHALL BE HELD PRIOR TO	┢━━┷	RE		
CONCRETE 4.	CONSTRUCTION COMMENCEMENT. THE <u>CITY OF ALBUQUERQUE</u> SHALL BE GIVEN AT LEAST 48 HOURS NOTICE PRIOR TO PERFORMING ANY INSPECTIONS.				
	TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE NMDOT DESIGN STANDARDS AND THE LATEST MANUAL ON				
BANK 6. OF BANK 7.	UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL MECHANICAL EQUIPMENT TO BE ROOF MOUNTED AND SCREENED FROM HE STREET. CONTRACTOR TO PROVIDE AS-BUILTS OF ALL IMPROVEMENTS TO THE SITE. AS-BUILTS				
_ GROUND	TO INCLUDE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, PIPES, FITTINGS, STRUCTURES, AND OTHER				ά I
GOVERHANG	APPURTENANCES. ELEVATIONS OF PIPES AT CROSSING POINTS MUST BE SUFFICIENT TO IDENTIFY MINIMUM SEPARATION OF UTILITIES. IN ADDITION TO THE AFOREMENTIONED CRITERIA AS-BUILTS MUST MEET ALL LOCAL AND JURISDICTIONAL REQUIREMENTS FOR			ĥ	×
LINE 8.	CERTIFICATION OF CONSTRUCTION. ALL AFFECTED SIDEWALKS, RAMPS AND CROSSWALKS, WILL BE BUILT AND INSPECTED			(9
ROUND SEWER LINE ROUND STORM DRAIN LINE ^{9.}	TO MEET CURRENT ADA REQUIREMENTS. BUILDING SETBACK DIMENSIONS MEASURED TO OUTERMOST ARCHITECTURAL FEATURE. CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.				
	ALL CURB RADII ARE 3' UNLESS SHOWN OTHERWISE. PRIOR TO INSTALLATION, CONTRACTOR MUST VERIFY LOCATIONS OF LIGHT POLES,			Щ v	,C,
	LANDSCAPING AND UTILITIES.	-	7)L(M 871
	<u>DETAILS</u>	<	LAN	5	C V NM
ND MATCH EXISTING	1D INVERTED "U" BIKE RACK (SEE CONSTRUCTION DETAILS SHEET C7.0)		ך ד וו		K toue,
	AND 2D DO NOT ENTER SIGN (MUTCD R5-1, SEE CONSTRUCTION DETAILS SHEET C7.0)	Ē	Ц П Л		UER U
NS)	3D ADA PARKING (PER 2015 NM ACCESSIBILITY CHECKLIST.			IA	H S'I
NG LOT STRIPE	SECTION 8 DETAIL. SEE SHEET C7.0) 4D ADA SIGN (PER 2015 NM ACCESSIBILITY CHECKLIST.				H
	SECTION 8 DETAIL. SEE SHEET C7.0)				981
T PAVING IAGE PLANS)	5D CONCRETE SIDEWALK (PER COABQ STD DWG NO. 2430. SEE SHEET C7.1)				
AND SPEAKER	6D CURB RAMP (PER COABQ DETAIL STD DWG NO. 2440 & 2441. SEE SHEET C7.1)				L L
OW	7D FLARED RAMP				Z Z
RMER	8D STANDARD CURB & GUTTER (PER COABQ DETAIL STD DWG				
HT BEACON	NO. 2415A. SEE SHEET C7.1) 9D BOLLARD (SEE CONSTRUCTION DETAILS				
MENT MARKING	SHEET C7.0)				
TMENT CONNECTION	10D WHEEL STOP (SEE CONSTRUCTION DETAILS SHEET C7.0)				
	11D STORM INLET TOP (PER COABQ DETAIL STD DWG NO. 2110. SEE SHEET C7.2)	4	of Add	NO-Nyarto	
TURAL PLANS)	12D STORM INLET (PER COABQ DETAIL STD DWG NO. 2201. SEE	$\left(\right)$	2	552	
NS) DN LIMITS (REFER TO	SHEET C7.2) 13D MOTORCYCLE PARKING SIGN (MUTCD R7-5-16)	125/			5/
NS)		1	55101	VAL ENGIN	k.
EFER TO ARCHITECTURAL	THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN		n	2/2	3/2022
NG	IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY	DESI BE		DRAWN BB	CHKD KAN
K BY OTHERS	Know what's below.	JOB		070426-	
	Call before you dig.	1		SHEET	

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GRADING LEGEND

PROPOSED BUILDING PROPERTY LINE STD. 6" CONCRETE CURB PROPOSED CONTOUR EXISTING CONTOUR DIRECTION OF FLOW SPOT ELEVATION EXISTING GRADE TIE IN TOP OF CURB BOTTOM OF CURB STORM CATCH BASIN STORM PIPE

EXISTING LEGEND

FOUND MONUMENT (AS NOTED) TEMPORARY BENCHMARK **TELEPHONE MANHOLE** SEWER MANHOLE DRAINAGE MANHOLE FIRE HYDRANT WATER VALVE DRAINAGE INLET SIGN (M) MEASURED/CALCULATED DIMENSION (R) RECORD DIMENSION N/F NOW OR FORMERLY R/W RIGHT-OF-WAY TBM TEMPORARY BENCHMARK RCP REINFORCED CONCRETE PIPE PVC POLYVINYL CHLORIDE PIPE BOC BACK OF CURB FL FLOW LINE EA EDGE OF ASPHALT TC TOP OF CONCRETE TA TOP OF ASPHALT TB TOP OF BANK BB BOTTOM OF BANK

SITE AREA TOTAL

IMPERVIOUS AREA: PERVIOUS AREA OPEN SPACE:

STORMWATER QUALITY VOLUME (SWQV) REQUIRED: SWQV = 0.42 INCHES PER SQUARE FOOT IMPERVIOUS AREA

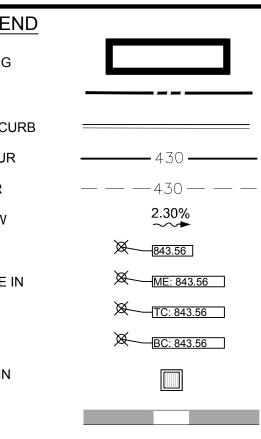
SWQV = (0.42 x 47,927) / 12 SWQV = 1,677 CF

STORMWATER QUALITY VOLUME (SWQV) PROVIDED SWQV PROVIDED POND 1 = 814 CF SWQV PROVIDED POND 2 = 934 CF TOTAL SWQV PROVIDED = 1,748 CF

POND 1 CURB CUT WEIR CALCULATIONS $L = Q / CH^{3/2}$ $_{-} = 0.47 / (2.7 \times 0.5^{3/2})$

POND 2 CURB CUT WEIR CALCULATIONS

 $L = 0.47 / (2.7 \times 0.5^{3/2})$ CURB CUT PROVIDED 2FT



BUILDING OVERHANG

CENTERLINE

NG NATURAL GROUND

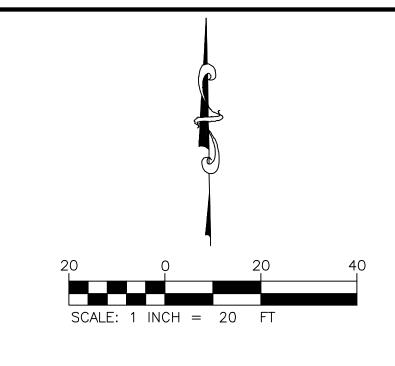
UNDERGROUND SEWER LINE

UNDERGROUND STORM DRAIN LINE

SUBJECT PROPERTY LINE

STORMWATER QUALITY VOLUME AND DETENTION

63,496 SF (1.457 AC) 47,927 SF (1.100 AC) 15,569 SF (0.357 AC)



GRADING NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE AND BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE, EXISTING SURVEYS, AND/OR FROM UTILITY OWNERS. THE OWNER DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES(ABOVE AND BELOW GROUND BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL APPROPRIATE UTILITY COMPANIES AND THE UTILITIE PROTECTION CENTER AT LEAST 72 HOURS BEFORE AN EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIF OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

- 2. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING AND COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". 3. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM
- BUILDING AND FOR ALL NATURAL AND PAVED AREAS. 4. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- 5. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PROVIDED BY THE OWNER. 6. ALL PROPOSED SPOT ELEVATIONS ARE PAVEMENT GRADES
- UNLESS OTHERWISE NOTED, TOP OF CURB ELEVATIONS ARE INCH ABOVE ELEVATIONS SHOWN ON THIS PLAN. 7. ALL ELEVATIONS PRESENTED IN THESE PLANS ARE RELATIVE TO
- THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88. 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUAT WATERING OF THE SITE BY THE CONTRACTOR.
- 9. CLEAR AND GRUB WITHIN WORK LIMITS FOR ALL SURFACE VEGETATION, TREES, STUMPS, BRUSH, ROOTS, ETC. DO NOT DAMAGE OR REMOVE TRESS EXCEPT AS APPROVED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS. PROTECT ALL ROOTS TWO INCHES IN DIAMETER OR LARGER.
- 10. STRIP WORK LIMITS, REMOVING ALL ORGANIC MATTER WHICH CANNOT BE COMPACTED INTO A STABLE MASS. ALL TRESS, BRUSH AND DEBRIS ASSOCIATED WITH CLEARING. STRIPPING OR GRADING SHALL BE REMOVED AND DISPOSED OFF SITE BY THE CONTRACTOR.
- 11. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, STRAIGH GRADES SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN. FINISH PAVEMENT GRADES AT TRANSITION TO EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES OR SHALL BE FEATHERED PAST JOINTS WITH EXISTING PAVEMENT AS REQUIRED TO PROVIDE SMOOTH, FREE DRAINAGE SURFACE
- 12. ALL EXISTING AND CONSTRUCTED MANHOLES, CLEANOUTS MONUMENTS, GAS VALVES, WATER VALVES, AND SIMILAF STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, LANDSCAPED AREA, OR MEDIAN STRIP WHEREIN THEY LIE.

ADA NOTES

- THE DESIGN PROFESSIONAL SIGNING THIS DOCUMENT REPRESENTS THAT TO THE BEST OF HIS/HER PROFESSIONAL JUDGEMENT, KNOWLEDGE, AND BELIEF THE DESIGN SPECIFICATIONS HEREIN COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
- 2. ALL GRADES/SLOPES SHOWN ON THIS PLAN WERE DESIGNED AT OR BELOW MAXIMUMS ALLOWED BY THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, AND THE ADA DESIGN MANUAL. IN THE EVENT THAT A DESIGN QUESTION SHOULD ARISE, OR A FIELD CONDITION PRESENT ITSELF THAT I DIFFERENT FROM THOSE SHOWN ON THESE PLANS, WORK SHOULD CEASE AND THE ENGINEER SHOULD BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- 3. THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL THE PHASES OF WORK RELATING TO ADA ACCESSIBILITY FOR THIS PROJECT. SINCE THE CODE DOES NOT ALLOW FOR CONSTRUCTION TOLERANCE, ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS REQUIRED B ADA ARE SUBJECT TO REJECTION AND MAY BE REQUIRED TO B REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 4. SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL TH EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUBCONTRACTORS DURING GRADING AN CONSTRUCTION OF THE PROJECT, THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL ACCEPTANCE OF AMERICANS WITH DISABILITIES ACT ACCESSIBILITY RELATED ITEMS BY THE CITY, ANY OTHER AUTHORITY, OR AFFECTED PARTIES.

FEMA FLOOD NOTE

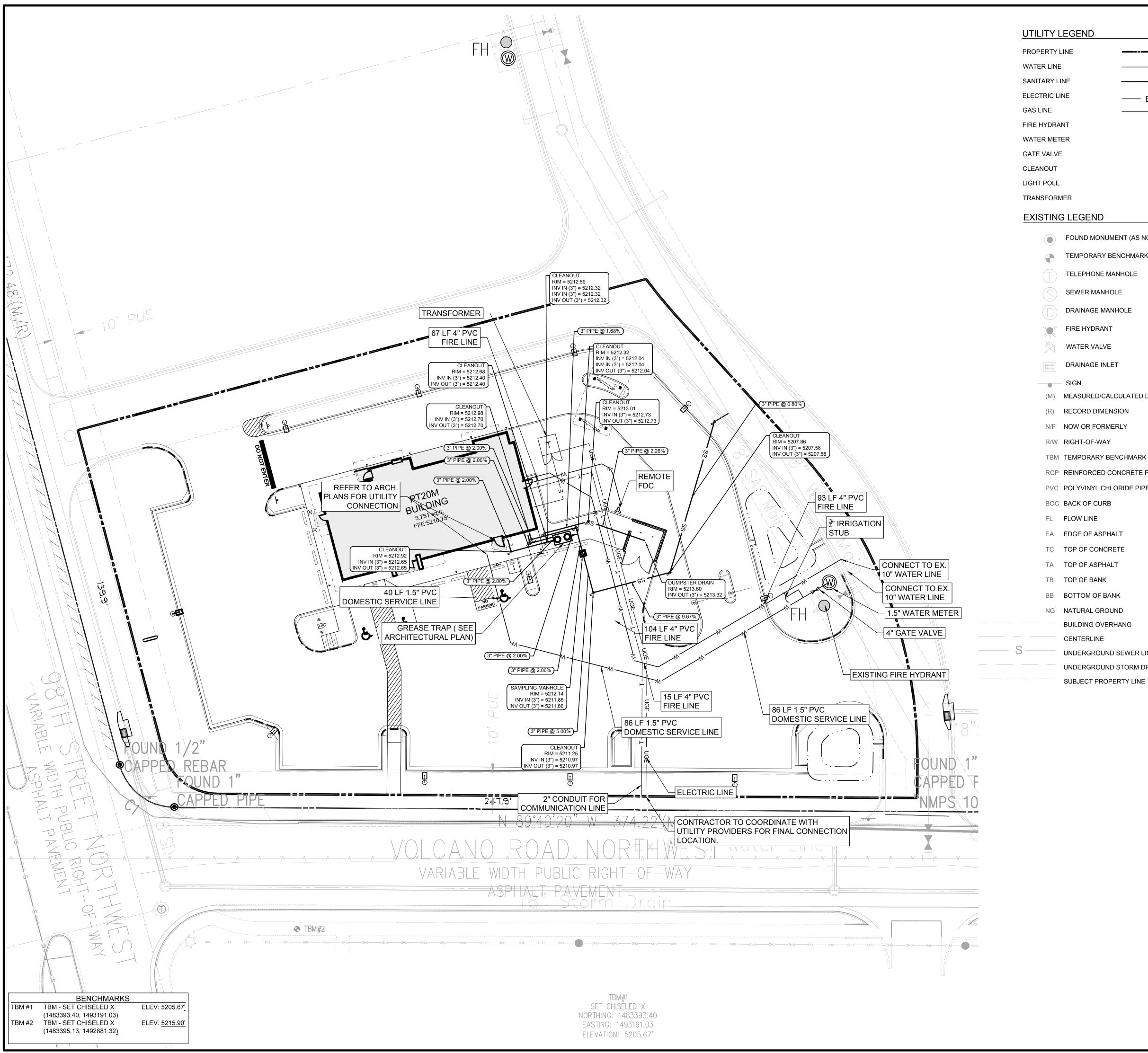
THIS PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 35001C0328J, WHICH BEARS AN EFFECTIVE DATE OF 11/04/2016 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.



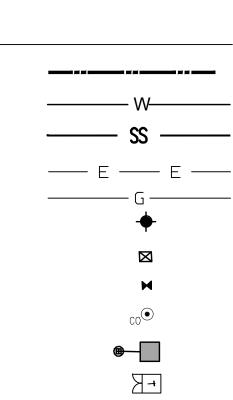
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

			C O N S U L T I N G	Bowman Consulting Group, Ltd.		nocracy Dr., Ph	Ste 205 Fax: (512) 327-4062 Plano, Texas 75024 www.bowman.com
	DATE						
REVISIONS	DESCRIPTION						
	REVISION	\mathbb{A}					
	GHADING & DHAINAGE PLAN		W/H A T A RI IR GFR		NFC 98TH ST & VOL CANO RD		ALBUQUERQUE, NM 87124
Citerio (B)	(255	D-N/ EX 552			1.20	2.0
DES B JOB			DRA BI	B	-01	CHI KA	N

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- FOUND MONUMENT (AS NOTED)
 - **TEMPORARY BENCHMARK**
 - **TELEPHONE MANHOLE**
 - DRAINAGE MANHOLE
- (M) MEASURED/CALCULATED DIMENSION
- (R) RECORD DIMENSION
- N/F NOW OR FORMERLY
- RCP REINFORCED CONCRETE PIPE
- PVC POLYVINYL CHLORIDE PIPE

 - UNDERGROUND SEWER LINE
 - UNDERGROUND STORM DRAIN LINE
 - SUBJECT PROPERTY LINE

SCALE: 1 INCH = 20 FT

UTILITY NOTES

- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND IS RESPONSIBLE TO REPAIR ANY DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 2. ALL UTILITIES ARE SHOWN FROM INFORMATION GATHERED AND SHOULD NOT BE USED AS EXACT. CONTRACTOR SHALL VERIFY EXACT DEPTHS AND LOCATIONS PRIOR TO UTILITY INSTALLATION AND NOTIFY THE ENGINEER OF RECORD IF THERE ARE ANY DEVIATIONS ROM WHAT IS SHOWN ON PLANS.
- 3. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY FOR INSTALLATION AND SPECIFICATION REQUIREMENTS. 4. ALL PIPE MATERIALS SHALL COMPLY WITH LOCAL REGULATIONS.
- 5. ALL TRENCHING AND BEDDING SHALL BE PER THE UTILITY TRENCH AND BEDDING DETAIL. 6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ALL
- BUILDING UTILITY TIE INS. 7. THE CONTRACTOR IS TO FIELD VERIFY THE EXACT LOCATIONS AND
- DEPTHS OF UTILITY LINES.
- 8. ALL CERTIFICATES AND SHOP DRAWINGS MUST BE SUBMITTED,
- REVIEWED, AND APPROVED PRIOR TO STARTING CONSTRUCTION. 9. CONTRACTOR TO PROVIDE AS-BUILTS OF ALL IMPROVEMENTS TO THE SITE. AS-BUILTS TO INCLUDE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, PIPES, FITTINGS, STRUCTURES, AND OTHER APPURTENANCES. ELEVATIONS OF PIPES AT CROSSING POINTS MUST BE SUFFICIENT TO IDENTIFY MINIMUM SEPARATION OF UTILITIES AS DEFINED BY ENGINEER. IN ADDITION TO THE AFOREMENTIONED CRITERIA,
- AS-BUILTS MUST MEET ALL LOCAL AND JURISDICTIONAL REQUIREMENTS FOR CERTIFICATION OF CONSTRUCT. 10. UNDERGROUND UTILITIES TO BE FIELD VERIFIED IN RIGHT-OF-WAY WORK WITH EXISTING UTILITIES.
- 11. UTILITY CONNECTIONS ARE SHOWN TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR TO REFER TO BUILDING PLANS FOR EXACT CONNECTION POINTS ON BUILDING AND VERIFY THAT THERE ARE NO CONFLICTS PRIOR TO START OF CONSTRUCTION.
- R 0 Ζ ABURGER & VOLCAN PLAN \succ UTILIT Η WHA TH ST **98TH**

CONTRACTOR MUST REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LOCATIONS OF ALL OUTSIDE DOORS AND BUILDING UTILITIES.

CONTRACTOR MUST COORDINATE ALL UTILITY CONNECTIONS SUCH AS ELECTRIC, GAS CABLE, TELEPHONE, WATER, SANITARY SEWER, STORM DRAINAGE WITH UTILITY PROVIDERS.



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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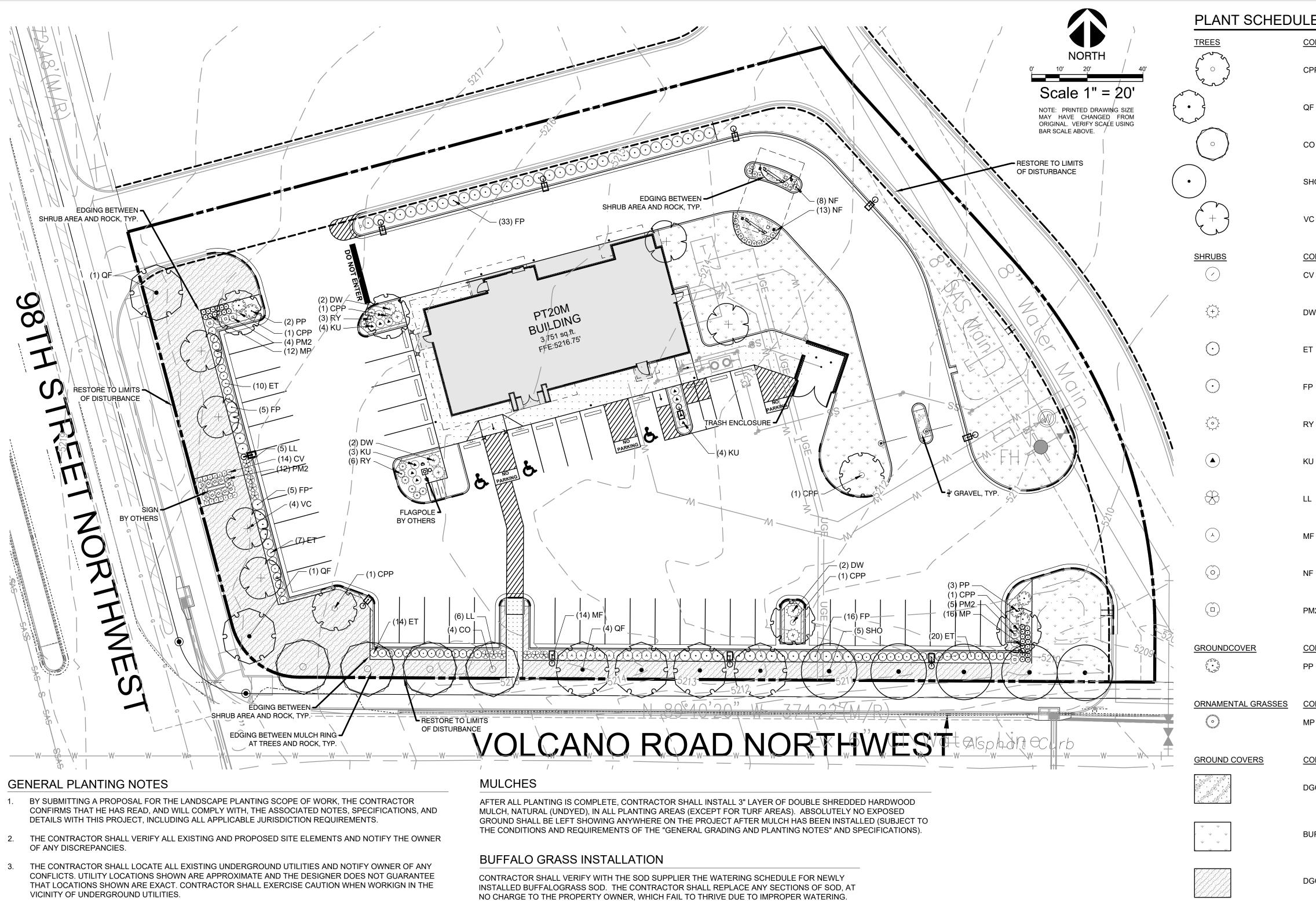
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- VICINITY OF UNDERGROUND UTILITIES.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE 4. NOTED TO REMAIN).
- ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE OWNER OR 5. OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
 - a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
 - b. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IN WRITING (VIA PROPER CHANNELS).
 - c. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE OWNER OR OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
- 6. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
- PROVIDE AND INSTALL BUFFALO GRASS IN ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS. 7.
- 8. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

IRRIGATION CONCEPT

- QUALIFIED IRRIGATION CONTRACTOR.
- THE POTABLE SOURCE.
- HYDROZONE.
- FEATURING SENSORY INPUT CAPABILITIES.

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A LICENSED AND

2. THE IRRIGATION SYSTEM WILL OPERATE ON POTABLE WATER, AND THE SYSTEM WILL HAVE APPROPRIATE BACKFLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF

3. ALL NON-TURF PLANTED AREAS SHALL BE DRIP IRRIGATED. SODDED AND SEEDED AREAS SHALL BE IRRIGATED WITH SPRAY OR ROTOR HEADS AT 100% HEAD-TO-HEAD COVERAGE.

4. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT

5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVICES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTOR AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS

LANDSCAPE CALCULATIONS

NET SITE AREA:

LANDSCAPE AREA REQUIRED:

LANDSCAPE AREA PROVIDED:

STREET FRONTAGE LANDSCAPING FRONTAGE LENGTH - 98th STREET: STREET TREES REQUIRED: STREET TREES PROVIDED: FRONTAGE LENGTH - VOLCANO RD: STREET TREES REQUIRED: STREET TREES PROVIDED:

PARKING LOT LANDSCAPING PARKING LOT AREA: LANDSCAPE AREA REQUIRED: LANDSCAPE AREA PROVIDED:

TOTAL PARKING SPACES: TREES REQUIRED: TREES PROVIDED:

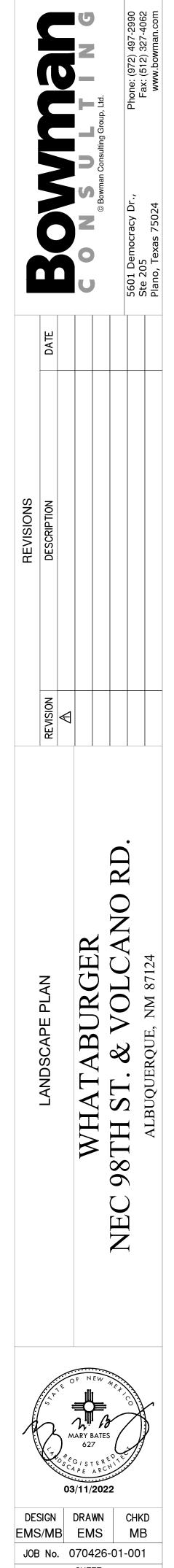
FRONT LOT EDGE BUFFER: SHRUBS REQUIRED: SHRUBS PROVIDED:

SIDE LOT EDGE BUFFER (VOLCANO ROAD) SHRUBS REQUIRED: SHRUBS PROVIDED:

TOTAL LANDSCAPE AREA: MINIMUM REQUIRED COVERAGE: COVERAGE PROVIDED OVERALL: 54 (6 PER 25 LF) 78 SHRUBS

15,616 SF

PLANT SCHE	EDULE					
TREES	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>CONT</u>	CAL	<u>SIZE</u>
	CPP	6	PISTACEA CHINESE CHINESE PISTACHE	CONT.	3"CAL	MIN. 12` HT.
·······································	QF	6	QUERCUS FUSIFORMIS ESCARPMENT LIVE OAK EVERGREEN	CONT.	3" CAL MIN	12` HT MIN
\bigcirc	со	4	QUERCUS MUEHLENBERGII CHINKAPIN OAK	CONT.	3"CAL	MIN. 12` HT.
·	SHO	5	QUERCUS SHUMARDII SHUMARD RED OAK	CONT.	3" CAL MIN	10` HT MIN
$\left(\begin{array}{c} + \\ + \\ \end{array}\right)$	VC	6	VITEX AGNUS-CASTUS CHASTE TREE	CONT.	3"CAL	10-12` HT.
<u>SHRUBS</u>	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>CONT</u>	SPACING	
\bigcirc	CV	14	COREOPSIS VERTICILLATA 'MOONBEAM' MOONBEAM TICKSEED	1 GAL	24" OC	
	DW	6	DASYLIRION WHEELERI GREY DESERT SPOON	5 GAL	SEE PLAN	
\bigcirc	ET	51	ERICAMERIA LARICIFOLIA TURPENTINE BUSH	5 GAL	36" OC	
\bigcirc	FP	59	FALLUGIA PARADOXA APACHE PLUME	5 GAL	48" OC	
	RY	9	HESPERALOE PARVIFLORA RED YUCCA	5 GAL	30" OC	
	KU	11	KNIPHOFIA UVARIA RED HOT POKER	3 GAL	36" OC	
\bigotimes	LL	11	LEUCOPHYLLUM LANGMANIAE 'LYNN'S LEGACY' LYNN'S LEGACY LANGMAN'S SAGE	5 GAL	36" OC	
	MF	14	MAHONIA FREMONTII DESERT MAHONIA	5 GAL	42" OC	
	NF	21	NEPETA X FAASSENII CATMINT	1 GAL	24" OC	
	PM2	21	POTENTILLA FRUTICOSA `MANGO TANGO` MANGO TANGO BUSH CINQUEFOIL	5 GAL	36" OC	
GROUNDCOVER	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>CONT</u>	SPACING	
er er sin	PP	5	PRUNUS BESSEYI 'P011S' TM PAWNEE BUTTES SAND CHERRY	3 GAL	60" OC	
ORNAMENTAL GRASS	<u>ES</u> <u>CODE</u>	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>CONT</u>	SPACING	
and a second sec	MP	28	MUHLENBERGIA X 'PINK FLAMINGO' PINK FLAMINGO MUHLY	1 GAL	24" OC	
GROUND COVERS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME			
	DGG2	177 SF	3/4" GRAVEL COLOR: GREY TO MATCH EXISTING			
	BUF	7,225 SF		CURTIS AND 4500 N Prince Clovis, NM 88		(877) 907-1806 seed@curtisseed.com
	DGG	5,470 SF				
			COLOR: GRAY TO MATCH EXISTING I, CONTAINER SIZE AS APPROPRIATE FOR FOR PROPER ROOT QUALITY.			
CALCULATIONS						
EQUIRED: ROVIDED:	63,496 SF 9,524 SF (15% 15,616 SF (24.6					
LANDSCAPING - 98th STREET:	146 LF					
UIRED: VIDED:	6 TREES (1 PE 6 TREES	R 25 LF OF	FRONTAGE)			
- VOLCANO RD: UIRED: VIDED:	307 LF 13 TREES (1 P 13 TREES	ER 25 LF OF	FRONTAGE)			
CAPING						
EQUIRED: ROVIDED:	19,686 SF 1,969 SF (10% 2,643 SF (13.4)					
ACES:	52 SPACES 6 TREES (1 TR 6 TREES				DESI	RGREEN GN GROUP
JFFER:	CONTINUOUS AS REQUIRED		N HEDGE		1600 E De	(800) 680-6630 Broadway, Suite 1600 mver, CO 80202 rgreenDesignGroup.com
FER (VOLCANO ROAD):	54 (6 PER 25 L				(ISTING UNDERGROUNE WAY ONLY. THE CON) UTILITIES ARE SHOWN TRACTOR SHALL



11,712 SF (75% OF LANDSCAPE AREA) 11,714 SF (75.0%)



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



RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SHEET LP-1

PLANTING SPECIFICATIONS

GENERAL

- A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
- ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING. 2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE
- OWNER FOR FURTHER QUALIFICATION MEASURES. 3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID NURSERY AND FLORAL CERTIFICATE ISSUED BY THE
- APPROPRIATE LOCAL JURISDICTION, AS WELL AS OPERATE UNDER A COMMERCIAL PESTICIDE APPLICATOR LICENSE.
- B. SCOPE OF WORK
 - 1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
- 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIAI S
- 3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

PRODUCTS

- A. ALL MANUFACTURED PRODUCTS SHALL BE NEW. B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
 - 1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014). PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.
- 2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
- 3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE
- PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE 4. ANY PLANT DEEMED UNACCEPTABLE BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTBLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAI
- 5. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
- CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT
- FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER. 7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
- 8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
- C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD. D. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS, ROOTS, AND
- SEEDS E. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
- F. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW)
- G. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS H. TREE STAKING AND GUYING
- STAKES: 6' LONG GREEN METAL T-POSTS.

MANUFACTURER'S LABELED RATES.

- GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT
- TREE TRUNKS FROM DAMAGE. I. STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN.
- ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL. I PRE-EMERGENT HERBICIDES ANY GRANULAR NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE
- METHODS
- A. SOIL PREPARATION 1. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST
 - 2. SOIL TESTING: a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL
 - TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING. b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
 - c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES
- d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE. 3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT
- RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
- 4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING: a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING K. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS AFTER CROSS-RIPPING:
 - i. NITROGEN STABILIZED ORGANIC AMENDMENT 4 CU. YDS. PER 1,000 S.F. ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
 - iii. "CLAY BUSTER" OR EQUAL USE MANUFACTURER'S RECOMMENDED RATE b. TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
 - i. NITROGEN STABILIZED ORGANIC AMENDMENT 4 CU. YDS. PER 1,000 S.F.
 - ii. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) 10 LBS. PER CU. YD. iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
 - iv. IRON SULPHATE 2 LBS. PER CU. YD.
- 5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS. a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED
- INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION. b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
- c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
- d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS. AT APPROXIMATELY 18" AWAY FROM THE WALKS.
- e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS
- f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE GENERAL CONTRACTOR, OWNER, OR OWNER'S REPRESENTATIVE. 6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.
- B. SUBMITTALS
 - THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE OWNER OR OWNER'S REPRESENTATIVE, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES. 2. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE, PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR
 - TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE APPROPRIATE) SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY).
- 4. WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED C. GENERAL PLANTING
- 1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
- 2. EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE 3. POSITION THE TREES AND SHRUBS IN THEIR INTENDED LOCATION AS PER THE PLAN. NOTIFY THE OWNER'S
- REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL POSITIONING OF PLANT MATERIALS. TRENCHING NEAR EXISTING TREES:

- (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK)
- TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
- LINES WITHIN 24 HOURS.
- ANY SORT OF SEALERS OR WOUND PAINTS. TREE PLANTING
- GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.

- ABOVE THE SURROUNDING GRADE
- COMPOSITION IN THE ON-SITE SOIL
- a. 1"-2" TREES (OR #15 GAL 24" BOX):
- b. 2-1/2"-4" TREES (OR 36" 48" BOX): c. TREES OVER 4" CALIPER (OR >48" BOX):
- d. MULTI-TRUNK TREES:
- INTERIOR OF THE TREE RING WITH MULCH (TYPE AND DEPTH PER PLANS).
- ADDITIONAL INFORMATION. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING
- **BARRIER CLOTH IN PLACE**
- THE ENTIRE PLANTING AREA. SODDING
- SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN. OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
- OF PENETRATION INTO THE SOIL BELOW THE SOD. G. MULCH
- DEPTH OVER ROOT BAL
- WALL
- H. CLEAN UP ORDERLY CONDITION.
- DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE INSPECTION AND ACCEPTANCE
- INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
- HOURS
- J. LANDSCAPE MAINTENANCE
 - WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION. PLANTS AT NO ADDITIONAL COST TO THE OWNER.
 - MUST OCCUR:
 - PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
- **IMPROPERI Y**

ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.

a. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR

c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP

d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE

TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL 4. INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES

BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM

OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND

TREES SHALL NOT BE STAKED UNLESS THE JURISDICTION OR LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION

SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT

SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES: TWO STAKES PER TREE

THREE STAKES PER TREE GUY AS NEEDED THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS

NEEDED TO STABILIZE THE TREE

UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE

FOR TREES IN TURF AREAS, DO NOT PLANT GRASS ALL THE WAY TO THE TRUNK OF THE TREE. LEAVE THE AREA OVER THE ROOT BALL AND INSTALL MULCH WITH AT LEAST 2" OF SPECIFIED MULCH. SEE MULCH SPECIFICATION FOR

DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS. INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED

WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING

LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT

ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH. WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES

INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE RINGS. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE. MULCH AT THE BASE OF SHRUBS SHALL BE A MAXIMUM 1"

MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. FINISH GRADE OF MULCH AT CURBS AND SIDEWALKS SHALL BE 1" LOWER THAN THE ADJACENT CURB OR SIDEWALK. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF

DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT,

UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN

WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24

THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER,

SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF

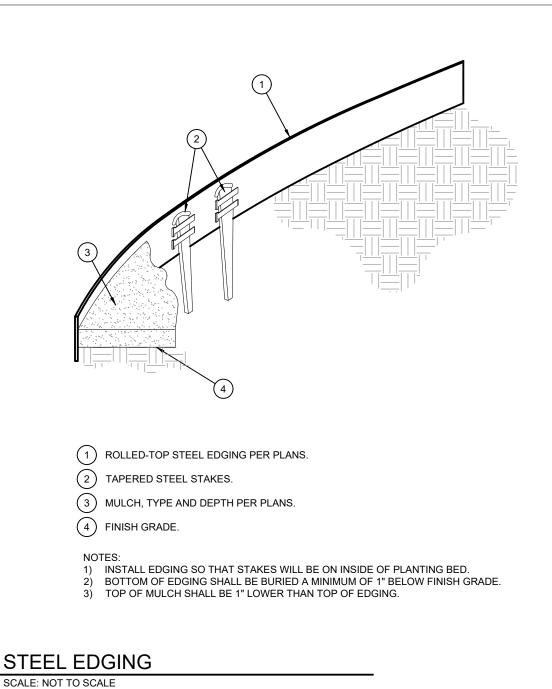
TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS i. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL

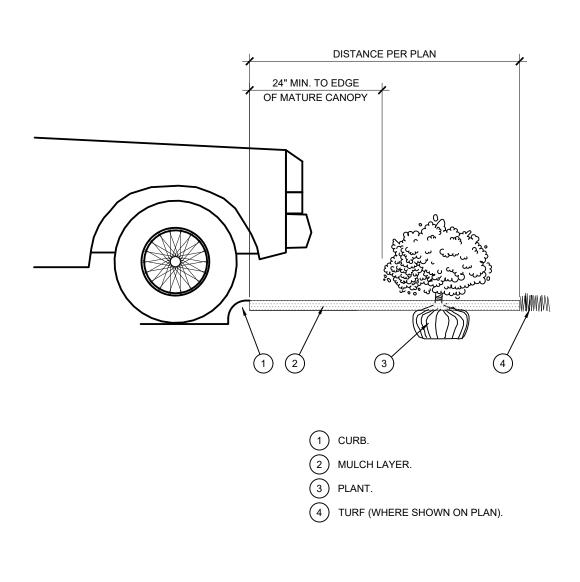
DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY k. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE

FIRST MOWING. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

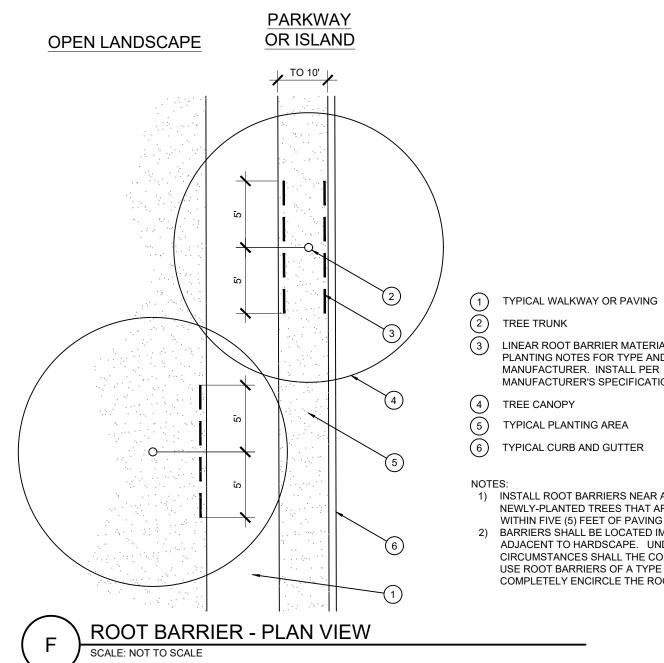
1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE

AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE









TYPICAL WALKWAY OR PAVING 2) TREE TRUNK

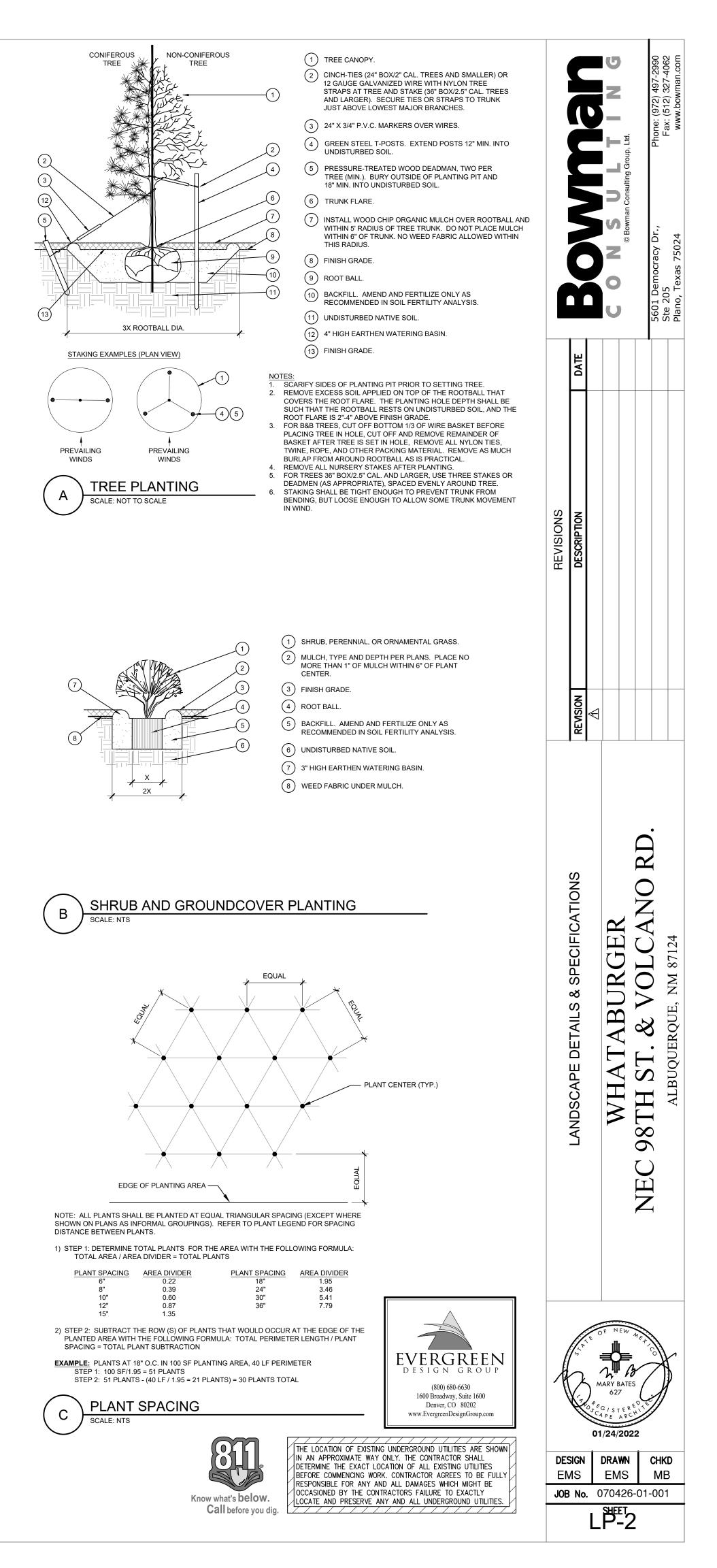
LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND

MANUFACTURER'S SPECIFICATIONS.

(6) TYPICAL CURB AND GUTTER

1) INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED

WITHIN FIVE (5) FEET OF PAVING OR CURBS. 2) BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL





Site Plan Traffic Flow-Unit 1265

Process Flow of Cars From Menuboard

•••



Date 1-10-22

Unit 1265

Drive Thru Menu Board Queue Simulation Analysis

Given:

- Unit 1265
 - o 2 Menu Board
 - 5 car stack per menu board

Find:

• Any occurrence with potential to impede traffic flow

Analysis Assumptions:

- Queue not to exceed 5 cars stack at each menu board.
- At the 6th car past menu board traffic management must be implemented
- Customer arrivals of 19-24 per hour with varied order sizes

Result:

 With high arrival of customers to the drive thru menu boards, an over stack condition of 6 cars or more will be encountered approximately 1 time within a busy lunch period. At this point traffic management must be deployed.

Site Plan Traffic Flow-Preliminary Brief

Total through-put:

Analysis:

Simulation queueing analysis was conducted for unit 1265 site plan to determine traffic flow requirements as to not impede, restrict, or otherwise block any major roadway, share access point, or egress route originating from the intersection of Whataburger's drive thru vehicle stack.

The assumptions of the analysis are:

- 5 car stack per menu board
- 6th car requires traffic management to be directed to main ingress and/or circling of the building to join the menu board queue
- Customer arrivals based on moderate-high to high arrivals to the menu board queue varying from 19-24 cars per hour with varied order sizes from 1 to 8 entrees per order

• Menu board order time is averaged to 45 seconds to place orders with similar times assigned to additional customer touch points along the drive thru (window 1, window 2, Expo)

Impacts/Adjustments

• Within a busy hour the drive thru stack to each menu board may exceed the 5 car drive stack approximately 5 times within that given hour.

• The occurrence can be mitigated by managing the queue to circle around the building to avoid traffic congestion.

Mitigation Plan

- Each unit will have a traffic flow plan during new unit openings.
- Security and local police will be notified and dispatched to site when needed.

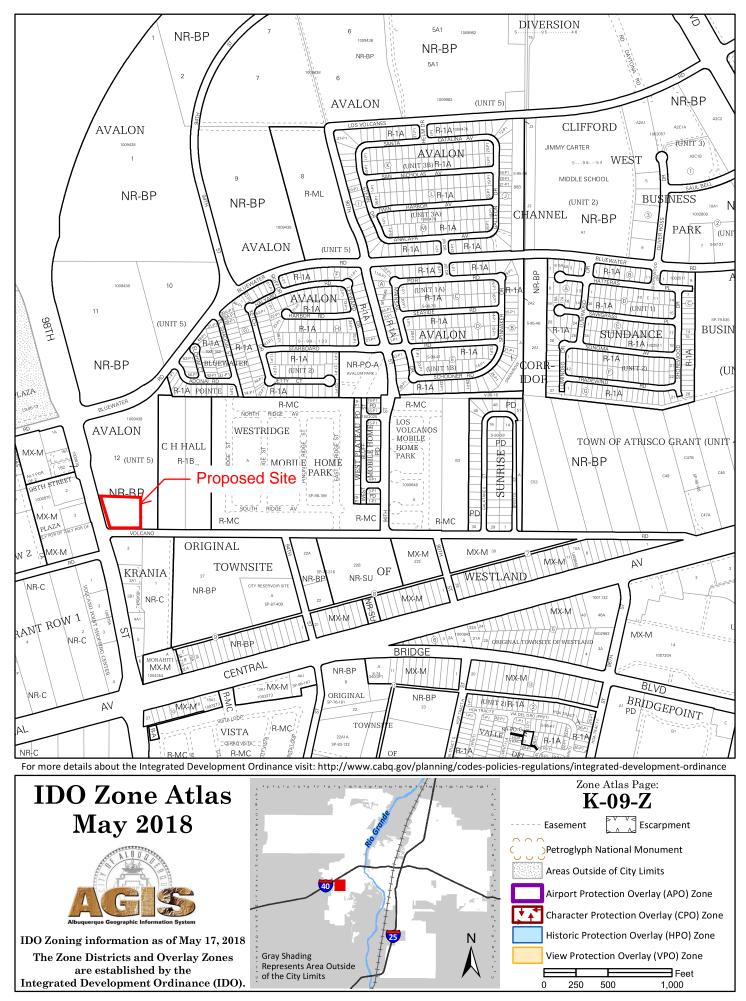
• In an effort to notify the public of excessive traffic at the new units and to minimize the occurrence of high traffic, the local media is given a copy of the traffic flow plan to communicate and disperse effectively.

• • •



Date 1-10-22





National Flood Hazard Layer FIRMette



Legend

