Dinsmôre

May 24, 2019

HAND DELIVERED

Board of Township Trustees Zoning Commission Sycamore Township, Ohio 8540 Kenwood Road Sycamore Township, OH 45236

> RE: Letter of Intent Application for a PUD II Graeter's Ice Cream Company 8167 Montgomery Road

Dear Members of the Board and Members of the Zoning Commission:

Graeter's Ice Cream Company seeks approval to build and operate a retail ice cream store on the property located at 8167 Montgomery Road (the "Property"). Specifically, the Applicant requests:

- (i) approval of the enclosed application for a PUD II to develop the Property as generally depicted on the enclosed plans; and
- (ii) approval of the Zoning Resolution deviations described in this Letter of Intent.

Graeter's requests that this case be added to the June 10, 2019 Zoning Commission Agenda.

1. Description of Use

Graeter's proposes to use the Property as a retail ice cream store. The proposed use is properly characterized as retail under the Sycamore Township Zoning Resolution (the "Zoning Resolution") because food will be prepared off-site and delivered to the Graeter's store for sale.

The Property is located in the "E" Retail/Business District. Pursuant to Table 3-2 of the Zoning Resolution, a retail use with an impervious surface ratio greater than .65,

Board of Township Trustees Zoning Commission May 24, 2019 Page 2

such as the proposed Graeter's store, is permitted in the "E" Retail/Business District with approval of a PUD II.

A drive-thru is proposed as an ancillary use to the Graeter's store. Under Section 10-9.1 of the Zoning Resolution, a drive-thru attached to a retail principal use is expressly permitted in the "E" Retail/Business District.

2. Description of Improvements

(a) Graeter's Store

Graeter's proposes to construct a 4,775 square foot ice cream store on the Property. The store will feature a service area, retail/seating area, and indoor play area. As noted previously, a drive-thru is proposed along the western boundary of the Property. The structure will feature brick construction. An outdoor seating area measuring approximately 130 square feet is also proposed.

(b) Signage

Graeter's proposes two signs, including a monument sign on Montgomery Road and a wall sign above the main entrance. The monument sign will replace the existing Verbargs pole sign. A small directional sign is also proposed at the entrance to the Property on Galbraith Road.

(c) Sidewalk Connection

Graeter's proposes to connect the Property to the public park to the northeast via a sidewalk. To complete the connection between the Property and the existing walkway on the park property, Graeter's wishes to install a 46-foot long section to four-foot-wide sidewalk (approximately 184 square feet in total) on the park property.

3. Requested Deviations from the Township Zoning Resolution

(a) Buffer

Pursuant to the Zoning Resolution, a buffer is required along the northeastern property line between the Property and the public park. Graeter's requests a deviation from the buffer requirement. The Graeter's design team has endeavored to provide as much landscaping as possible given the physical constraints of the site. However, there is no space on the Property to install the required buffer. To reconcile the lack of an onsite buffer, Graeter's proposes to donate sufficient landscaping to Sycamore Township for planting on the public park. This proposal would allow for the creation of the necessary buffer while also enhancing the park. Board of Township Trustees Zoning Commission May 24, 2019 Page 3

(b) Directional Sign

Graeter's requests two deviations for the proposed directional sign on Galbraith Road

(1) Signage Text

Pursuant to the Zoning Resolution, directional signs cannot include any advertising. Graeter's requests a deviation from this restriction to include its name on the directional sign on Galbraith Road. Omitting Graeter's name from the sign could cause confusion regarding the purpose of the drive. The requested deviation is a reasonable way of avoiding such confusion.

(2) Side Setback

Pursuant to the Zoning Resolution, signage is required to be setback five feet from the side property line. Graeter's requests a deviation from this requirement to install its directional sign 18 inches from the side setback. As shown on the plans, there is no way to maintain the side setback and keep the Galbraith Road access free from obstruction.

(c) Galbraith Road Streetscape Buffer

Pursuant to the Zoning Resolution, all street frontages are required to have streetscape buffers. Graeter's requests a deviation from this requirement for its Galbraith Road frontage. As shown on the plans, the Galbraith Road frontage is only wide enough to accommodate the existing access drive. Thus, there is no place to install a streetscape buffer on Galbraith Road. However, the required streetscape buffer is proposed along Graeter's primary frontage on Montgomery Road.

(d) Monument Sign Side Setback

Pursuant to the Zoning Resolution, the monument sign is required to be setback five feet from the side property line. Graeter's requests a deviation from this requirement to locate the monument sign three feet from the side property line. Due to the configuration of the access points on Montgomery Road, there is a limited area in which to locate the monument sign. The minimal space available necessitates locating the monument sign within the side setback. The minimal deviation requested will have no adverse impacts on the adjacent property.

(e) Dumpster Enclosure Rear Setback

Pursuant to the Zoning Resolution, there is a required twenty-foot rear setback. Graeter's requests a deviation from this setback to locate its dumpster enclosure 9'3" from the rear property line. Locating the dumpster within the rear setback is necessary given Board of Township Trustees Zoning Commission May 24, 2019 Page 4

the limited space on the property, and will have no adverse impacts on the surrounding properties.

(f) Canopy Height

Pursuant to the Zoning Resolution, window and door canopies are not permitted to be installed higher than eight feet above grade. Graeter's requests a deviation from this requirement to install its front entrance canopy at a height of 10'4". As shown on the plans, the arrangement of the glass panels at the front entrance necessitates a higher placement of the canopy. The requested deviation is minor and will make for a more attractive appearance.

4. Conclusion

In conclusion, the Applicant requests approval of the PUD II Plan for the proposed Graeter's ice cream store as well as the Zoning Resolution deviations discussed in this Letter of Intent

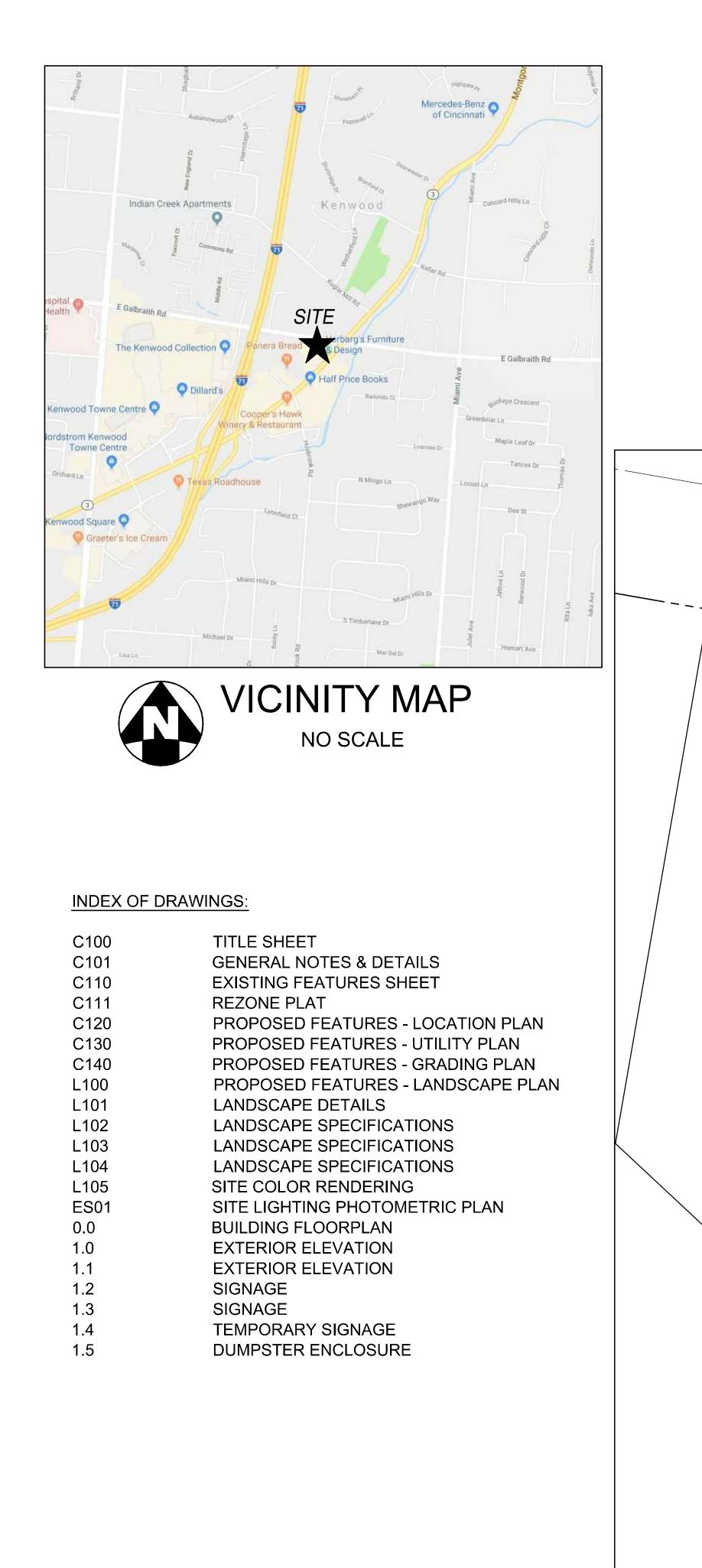
Sincerely,

/s/ Richard B. Tranter

Richard B. Tranter

Attorney for Graeter's Ice Cream Company

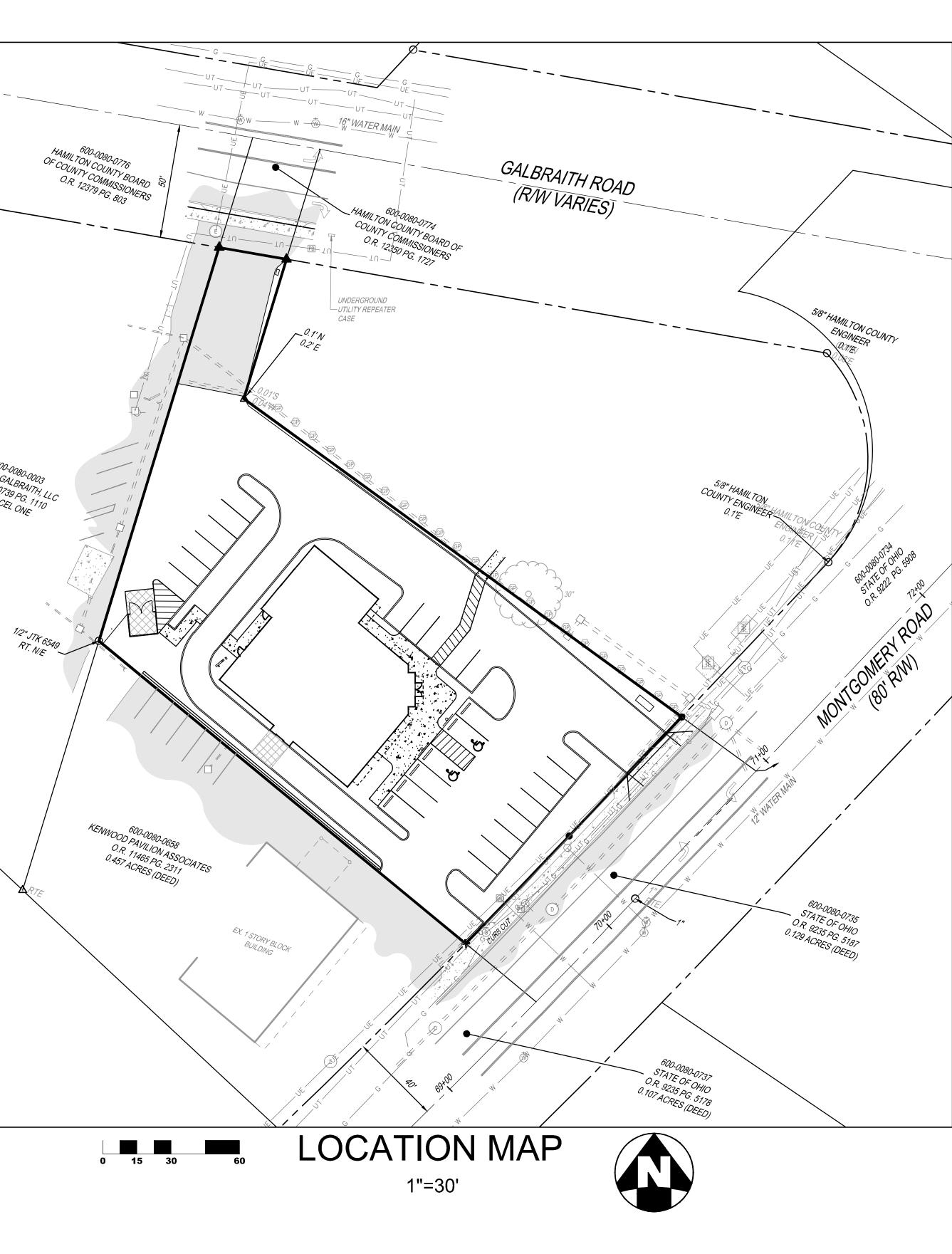
Enclosures

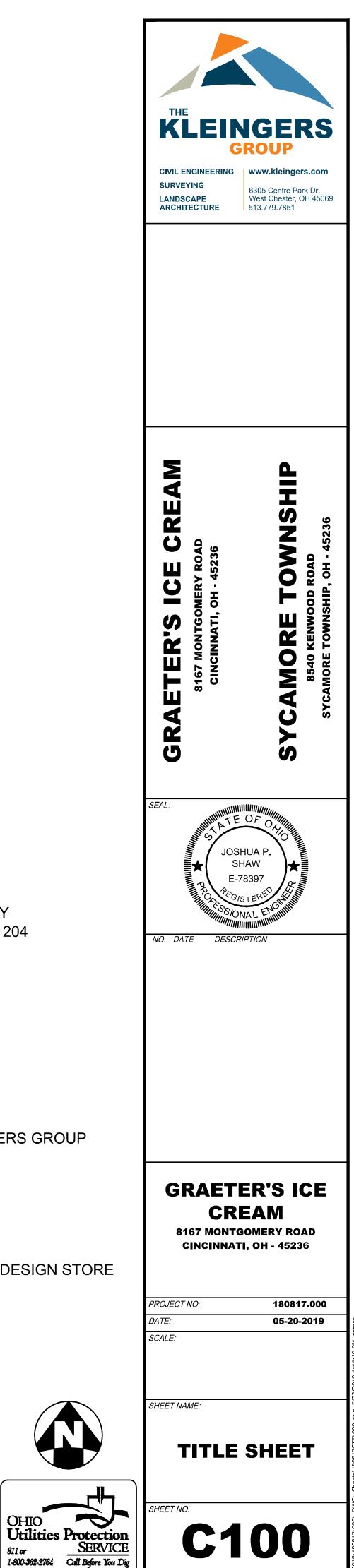


UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY **Z** PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.

GRAETER'S ICE CREAM SYCAMORE TOWNSHIP

8167 MONTGOMERY ROAD CINCINNATI, OHIO - 45236





SITE DATA:

OWNER: W.B. MEIER REALTY COMPANY 9825 KENWOOD ROAD, SUITE 204 CINCINNATI, OH 45242

SITE ENGINEER: THE KLEINGERS GROUP 6219 CENTRE PARK DRIVE WEST CHESTER, OH 45069 CONTACT: JOSHUA P. SHAW P: 513-779-7851

TOPOGRAPHIC: PER SURVEY BY THE KLEINGERS GROUP AND RECORD DRAWINGS

REFERENCE BENCHMARKS: SEE SITE SURVEY

EXISTING USE: VERBARG'S FURNITURE AND DESIGN STORE

PROPOSED USE: **GRAETER'S STORE**



OHIO

811 or

GENERAL NOTES

- SYCAMORE TOWNSHIP, AND THE CURRENT EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS). INCLUDING ALL SUPPLEMENTS, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THIS PLAN. IGNORE REFERENCES TO MEASUREMENT AND PAYMENT IN THE ODOT CMS UNLESS NOTED OTHERWISE. IN THE CASE OF CONFLICTS BETWEEN THE ODOT CMS AND SYCAMORE TOWNSHIP REQUIREMENTS, THE SYCAMORE TOWNSHIP REQUIREMENTS SHALL PREVAIL
- THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT, THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES WHO ARE NON-MEMBERS OF THE OHIO UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
- CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
- THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS.
- THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING THE SCOPE OF THE WORK. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE HIM FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE CONTRACT.
- NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR EXPENSES INCURRED DUE TO SOIL CONDITIONS, GROUNDWATER, AND/OR ROCK EXCAVATION, ALL OF THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
- THE COST OF ALL DEWATERING REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
- THE DIRECT OR INDIRECT DISCHARGE OR PUMPING OF UNFILTERED SEDIMENT-LADEN WATER INTO THE STORM DRAINAGE SYSTEM OR WATERCOURSE IS ILLEGAL AND PROHIBITED.
- ANY WELL, WELL POINT, PIT, OR OTHER DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUND WATER TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISIONS OF THIS PLAN AS DIRECTED BY THE DIRECTOR OF PUBLIC UTILITIES OR HIS REPRESENTATIVE.
- ANY CONTRACTOR INSTALLING ANY WELL, WELL POINT, PIT, OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUND WATER FROM AN AQUIFER SHALL COMPLETE AND FILE A WELL LOG AND DRILLING REPORT FORM WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR). DIVISION OF WATER, WITHIN 30 DAYS OF THE WELL COMPLETION IN ACCORDANCE WITH THE OHIO REVISED CODE SECTION 1521.01 AND 1521.05 IN ADDITION, ANY SUCH FACILITY IS COMPLETED IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE, FOR COPIES OF THE NECESSARY WELL LOG, DRILLING REPORT, OR REGISTRATION FORMS, PLEASE CONTACT: DIVISION OF WATER, OHIO DEPARTMENT OF NATURAL RESOURCES, FOUNTAIN SQUARE, COLUMBUS, OHIO 43224, (614)2656717.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO THE ODNR FOR THE REGISTRY, MAINTENANCE AND ABANDONMENT OF ANY WITHDRAWAL DEVICE USED IN CONSTRUCTION OF THIS PROJECT.
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB, UNLESS OTHERWISE NOTED.
- 13. ALL SITE SIGNAGE, STRIPING COLOR AND WIDTH SHALL BE PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL EXISTING PAVEMENTS, WALKS, CURBS, ETC. SHALL BE SAWCUT BEFORE REMOVAL. IF, DURING CONSTRUCTION. THE PAVEMENT, WALKWAY, CURB, ETC, IS DAMAGED BEYOND THE ORIGINAL SAWCUT. THE DAMAGED AREA SHALL BE RECUT TO NEAT LINES AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUTTING SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
- THE CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT TO PROVIDE A SMOOTH VERTICAL FULL DEPTH BUTT JOINT BETWEEN THE EXISTING PAVEMENT OR CURB AND THE PROPOSED PAVEMENT CONTRACTOR SHALL LOCATE SOUND PAVEMENT EDGE AND CUT AND TRIM PAVEMENT TO A NEAT LINE. INCLUDE THE COST OF PAVEMENT REMOVAL AND DISPOSAL IN THE PRICE BID FOR THE PROJECT.

GRADING NOTES

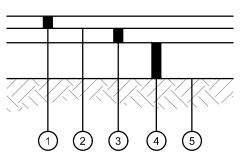
- CONTRACTOR TO REMOVE TREES AND CLEAR AREAS AS NECESSARY TO PERFORM ALL SITE WORK INCLUDING GRADING AND UTILITY WORK.
- PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE. EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.
- SITE BUILDING PAD EXCAVATION AND CONSTRUCTION TO BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. BUILDING PAD PREPARATION SHALL BEGIN BY CLEARING & STRIPPING UNSUITABLE MATERIAL FROM PAD SITE. THEN PLACE & COMPACT BACKFILL MATERIAL AT GEOTECHNICAL ENGINEER'S AND ARCHITECT'S RECOMMENDATIONS. ALL BACKFILL MATERIAL MUST BE ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
- ALL FILL UNDER PAVEMENT SHALL BE COMPACTED TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR BALANCING THE SITE EARTHWORK ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR BURY/BORROW PITS AS NEEDED TO BALANCE THE SITE. GEOTECH AND ENGINEER MUST APPROVE AREAS PRIOR TO BURY/BORROW OPERATIONS. AS-BUILT OF BURY/BORROW PIT WILL BE REQUIRED AT COMPLETION OF CONTRACTOR WORK AND MUST BE SUBMITTED TO THE CONSTRUCTION MANAGER.
- CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL PRACTICES REQUIRED BY SYCAMORE TOWNSHIP AND THE OHIO EPA.
- ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IF NO SPECIFICATIONS ARE SUPPLIED, USE ODOT ITEM 659.
- CONTRACTOR TO LAYOUT BUILDING BASED ON ARCHITECTURAL/FOUNDATION PLANS. SITE PLAN IS FOR CONCEPTUAL PURPOSES ONLY.

UTILITY NOTES

- ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER. MAINTAINING THE SAME GRADIENT AS EXISTING. THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO THE CURB SUBDRAIN, STORM SEWER SYSTEM OR OUTLETTED INTO THE ROADWAY DITCH AS APPLICABLE. REPLACED DRAIN TILE/STORM SEWER SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION. COST OF THIS WORK TO BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
- ALL EXISTING UTILITIES KNOWN TO EXIST HAVE BEEN SHOWN ON THESE PLANS IN THEIR APPROXIMATE LOCATION. PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE UTILITIES SHOWN. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROTECTION AND/OR RELOCATION OF ANY UTILITIES THAT MAY EXIST AND ARE NOT SHOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.
- 4. UTILITY POLES WITHIN INFLUENCE OF THE UTILITY OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO THESE CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
- 6. CONTRACTOR TO REPLACE ANY PAVEMENT OR UTILITIES DAMAGED WHICH ARE NOT SPECIFIED TO BE REMOVED ON THESE PLANS.
- ALL CATCH BASINS PLACED WITHIN THE PAVEMENT SHALL HAVE HEAVY DUTY FRAMES AND GRATES AND CONFORM TO ADA REQUIREMENTS.
- ADJUST ALL EXISTING CASTINGS AND CLEANOUTS WITHIN PROJECT AREA TO GRADE AS REQUIRED. ALL CATCH BASINS WITH DEPTH GREATER THAN 4.5' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611.
- ALL STORM AND SANITARY SEWER MANHOLES WITH A DEPTH GREATER THAN 4' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611.

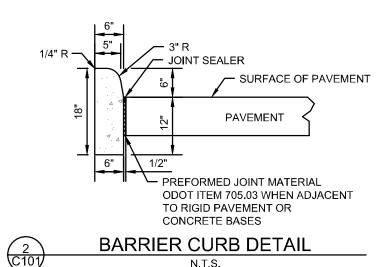
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.

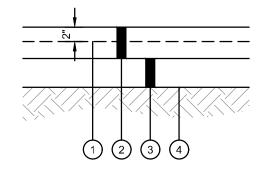
- 11. DISTANCES SHOWN FOR BOTH SANITARY AND STORM SEWER PIPES ARE MEASURED FROM CENTER OF STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL FIELD CUT LENGTH. COORDINATES FOR STORM AND SANITARY STRUCTURES ARE SHOWN TO THE CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
- 12. IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE, RIP RAP, ROCK CHANNEL PROTECTION, SODDING, POURING BOTTOMS, MUDDING LIFT HOLES FTC.
- 13. ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE PRIVATE AND MAINTAINED BY THE OWNER. EROSION CONTROL MEASURES MUST PROVIDE PROTECTION UNTIL COMPLETION OF THE PROJECT AND VEGETATIVE STABILIZATION.
- 14. THE CONTRACTOR IS TO CONSTRUCT CURBS, CATCH BASINS, DOWNSPOUTS, PIPING AND CONNECTIONS ETC. AS REQUIRED TO CONVEY THE ROOF AND PAVED SURFACE DRAINAGE TO THE DETENTION BASIN
- 15. ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
- 16. SITE CONTRACTOR SHALL PICK UP ALL UTILITIES, WITH THE EXCEPTION OF DOWNSPOUTS, 5' OUTSIDE BUILDING WALL. COORDINATE WITH CONSTRUCTION MANAGER.
- 17. ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
- 18. STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: PVC SDR-35 PER ODOT ITEM 707.45, PVC PROFILE PIPE PER ODOT ITEM 707.43, HIGH DENSITY POLYETHYLENE PER ODOT ITEM 707.33, ALUMINIZED CORRUGATED METAL, ODOT ITEM 707.01, 707.02, OR REINFORCED CONCRETE PIPE ODOT ITEM 706.02 CLASS IV. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. ALL STORM IS TO BE INSTALLED PER ODOT ITEM 611. ALL STORM PIPE USED MUST HAVE A MANUFACTURER SPECIFIED FRICTION FACTOR OF 0.013 (N=0.013) OR LESS
- 19. ALL CATCH BASINS IN THE PAVEMENT ARE TO HAVE 4, 4" PERFORATED UNDERDRAINS EXTENDING 10 LF FROM THE CATCH BASIN IN THE UPHILL DIRECTION AND CAPPED. ALL CATCH BASINS IN THE CURB ARE TO HAVE 2. 4" PERFORATED UNDERDRAINS EXTENDING 10 LF FROM THE CATCH BASIN IN THE UPHILL DIRECTION AND CAPPED.
- 20. FOR EXACT LOCATION OF DOWN SPOUTS & ROOF DRAINS, COORDINATE WITH CONSTRUCTION MANAGER. ALL ROOF DRAINS ARE TO BE 8" UNLESS OTHERWISE NOTED
- 21. ALL YARD DRAINS SHALL BE ONE OF THE FOLLOWING: NYLOPLAST-ADS DRAIN BASIN, NDS DURACAST FABRICATED PVC CATCH BASIN, AGRI-DRAIN CATCH BASIN, OR APPROVED EQUAL.
- 22. ALL EXISTING INVERTS ALONG PROPOSED PIPE ALIGNMENTS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE SEWER.
- 23. ANY FIELD TILE CUT IN EXCAVATION WHICH DRAINS IN AN OFFSITE AREA MUST BE TIED INTO THE STORM DRAINAGE SYSTEM.
- 24. THE FLOW IN ALL SEWERS, DRAINS, FIELD TILES AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK. THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE TO A CONDITION SATISFACTORY TO THE ENGINEER.
- 25. SANITARY SEWER SHALL BE SDR-35 OR APPROVED EQUAL AND CONFORM TO THE STANDARDS AND SPECIFICATIONS OF SYCAMORE TOWNSHIP. PIPE MUST MEET MINIMUM SLOPE REQUIREMENTS OF SYCAMORE TOWNSHIP AND OHIO EPA. SANITARY SEWER SHALL BE INSTALLED AT A MINIMUM DEPTH OF FOUR FEET (4') UNLESS OTHERWISE NOTED. A MINIMUM OF 18" CLEARANCE SHALL BE MAINTAINED AT ALL WATERLINE CROSSINGS. SANITARY SERVICE JOINTS SHALL CONFORM TO ASTM D-3212.
- 26. SANITARY SEWER IS TO BE BEDDED WITH CLEAN GRANULAR MATERIAL-AGGREGATES NOT TO BE LARGER THAN 3/4" AND NOT SMALLER THAN NO. 8 SIEVE, FREE OF SILT AND FINES, AASHTO M43 SIZE #67, 7 OR 8. BEDDING TO BE MINIMUM OF 6" BELOW & 12" ABOVE THE PIPE.
- 27. ALL WATERLINE CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERLINE AT ALL CROSSINGS. WATERLINE SHALL BE LOCATED A MINIMUM OF 10' HORIZONTALLY FROM ANY SANITARY SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERLINE PIPE. ONE FULL LENGTH OF WATERLINE PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE. ALL WATER SHALL HAVE A MINIMUM OF 4' OF COVER.
- 28. WATERLINE SHALL BE DUCTILE IRON PIPE CLASS 52, MINIMUM 250 PSI. (ADD SPECIAL NOTE FOR WATERLINE 2 INCHES AND UNDER TO BE "K" COPPER OR POLYTUBING, MAKE SURE SPEC FOLLOWS)



- 1 1/2" ODOT ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- ODOT ITEM 407 TACK COAT, APPLY IF TIME BETWEEN ASPHALT LIFTS EXCEEDS 30 DAYS
- 2" ODOT ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
- 8" ODOT ITEM 304 AGGREGATE BASE
- SUBGRADE COMPACTION, REFERENCE ODOT ITEM 204, EARTHWORK SPECIFICATION 312000 AND SOILS REPORT

STANDARD DUTY ASPHALT PAVEMENT DETAIL

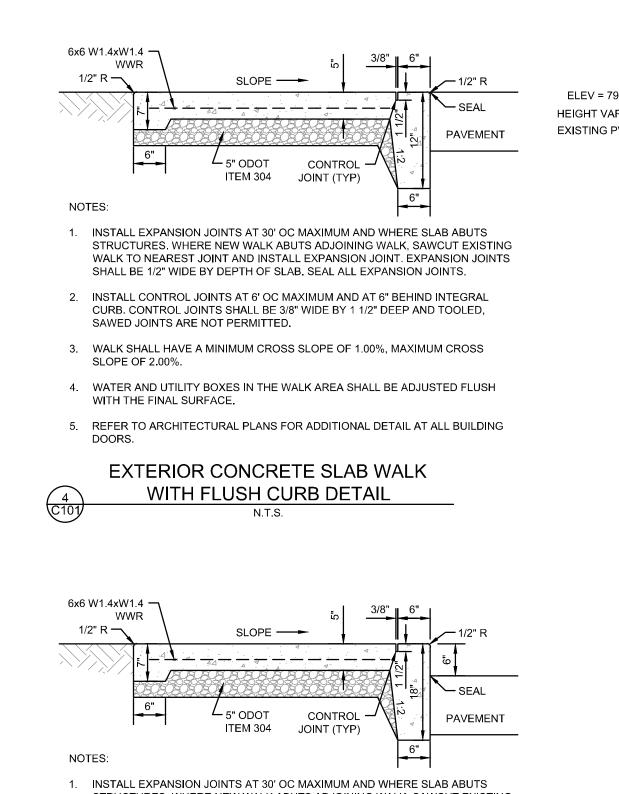


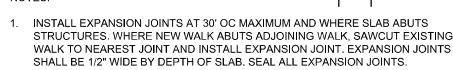


- 6X6 W4XW4 WELDED WIRE REINFORCEMENT
- 8" ODOT ITEM 452 NONREINFORCED PORTLAND
- CEMENT CONCRETE PAVEMENT 6" ODOT ITEM 304 AGGREGATE BASE
- SUBGRADE COMPACTION, REFERENCE ODOT ITEM
- 204, EARTHWORK SPECIFICATION 312000 AND SOILS REPORT

HEAVY DUTY



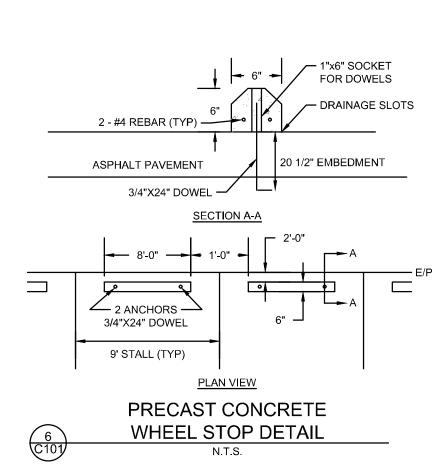


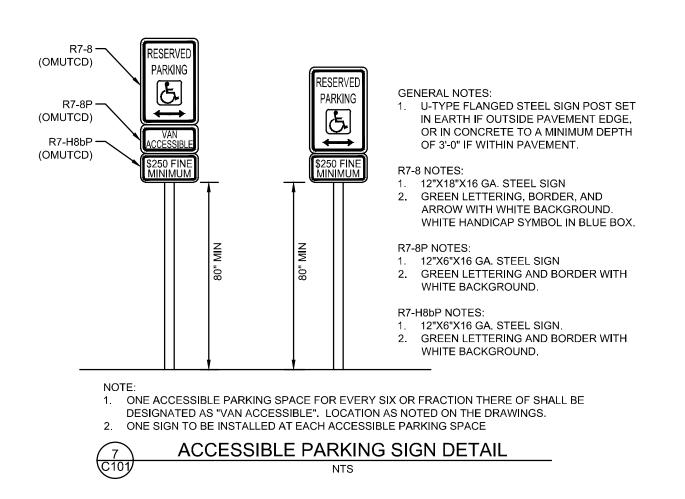


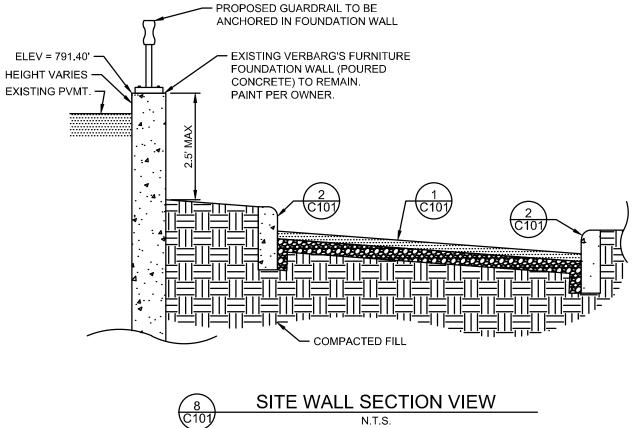
- 2. INSTALL CONTROL JOINTS AT 6' OC MAXIMUM AND AT 6" BEHIND INTEGRAL CURB. CONTROL JOINTS SHALL BE 3/8" WIDE BY 1 1/2" DEEP AND TOOLED, SAWED JOINTS ARE NOT PERMITTED.
- 3. WALK SHALL HAVE A MINIMUM CROSS SLOPE OF 1.00%, MAXIMUM CROSS SLOPE OF 2.00%.
- 4. WATER AND UTILITY BOXES IN THE WALK AREA SHALL BE ADJUSTED FLUSH WITH THE FINAL SURFACE.
- 5. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL DETAIL AT ALL BUILDING

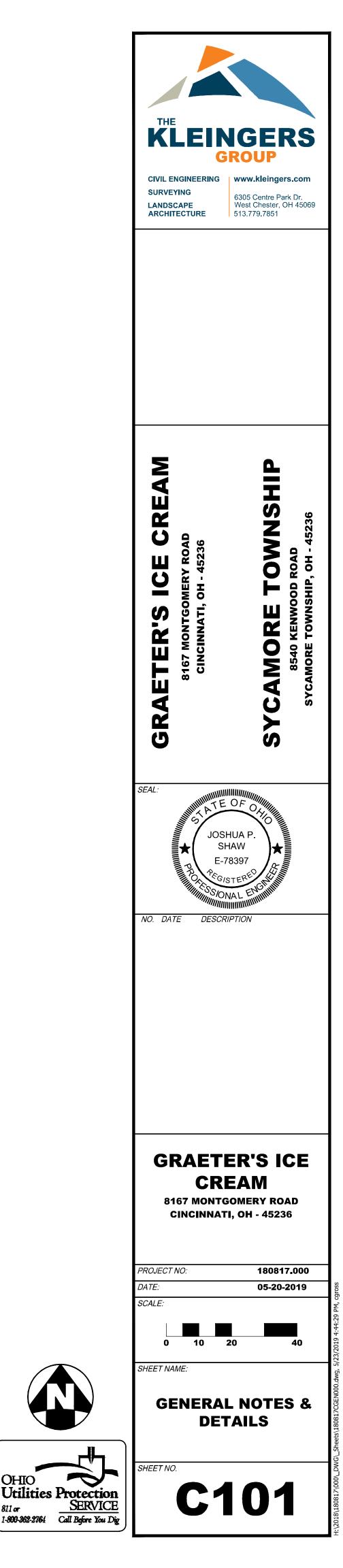


EXTERIOR CONCRETE SLAB WALK WITH INTEGRAL CURB DETAIL N.T.S



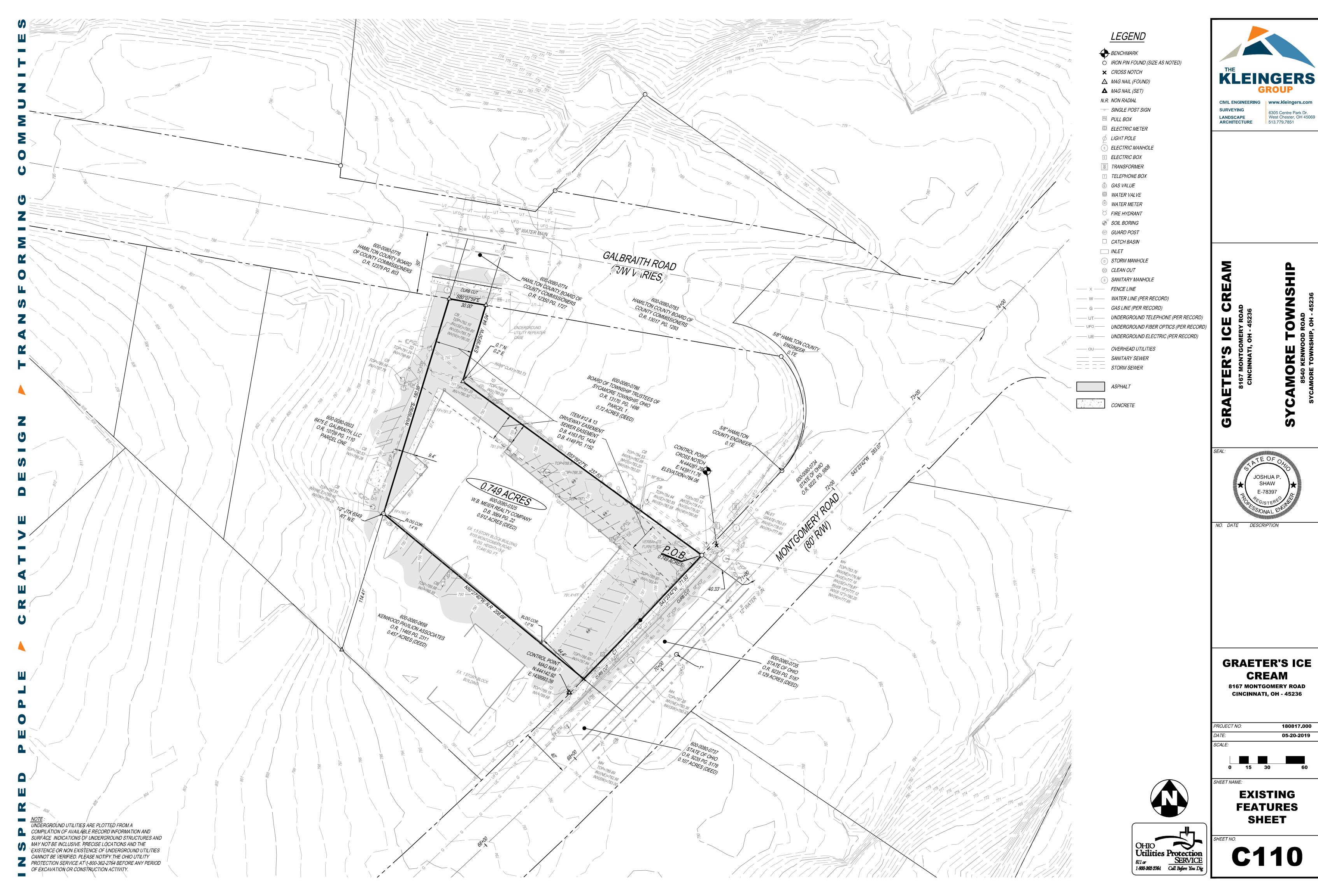




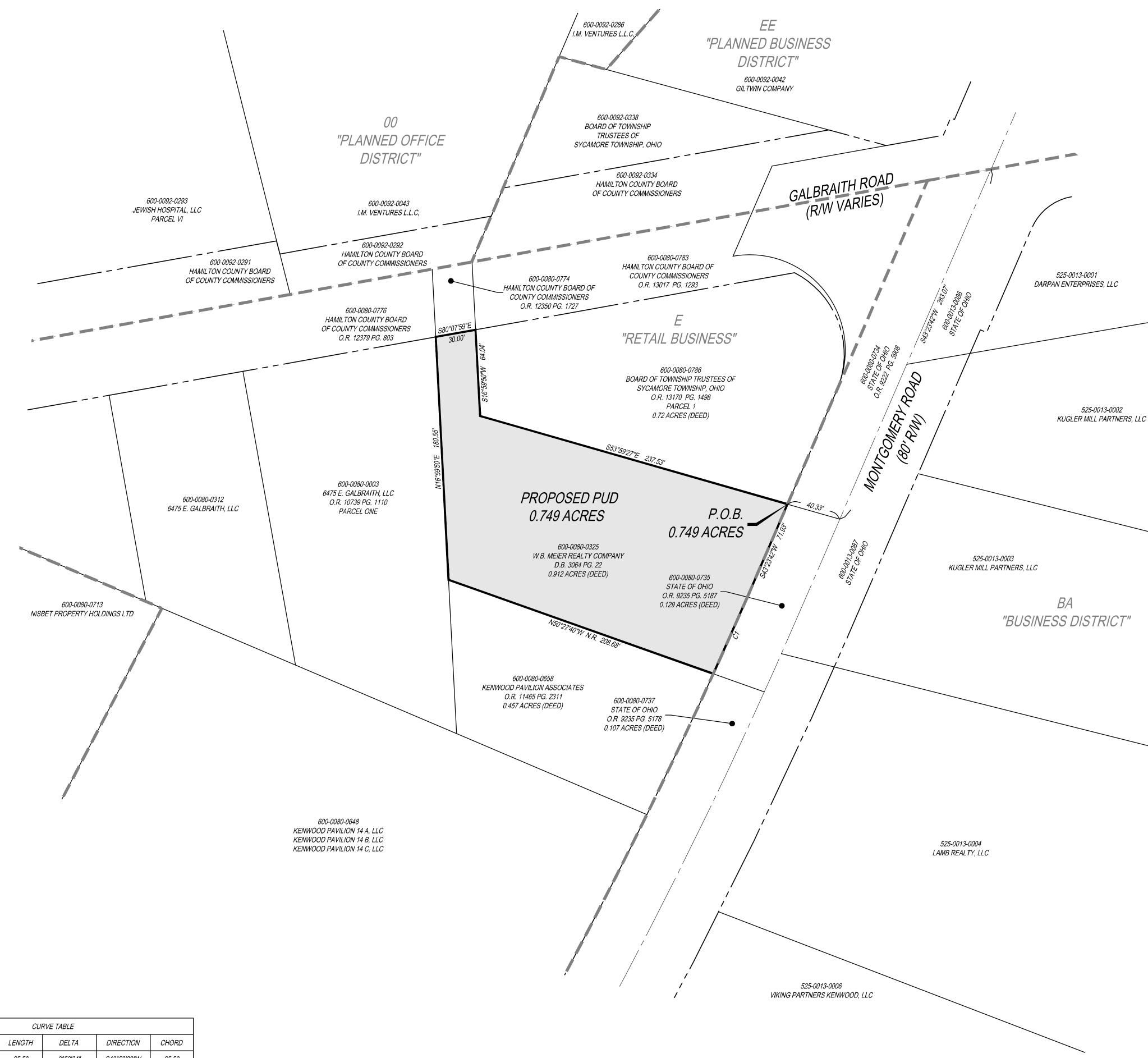


OHIO

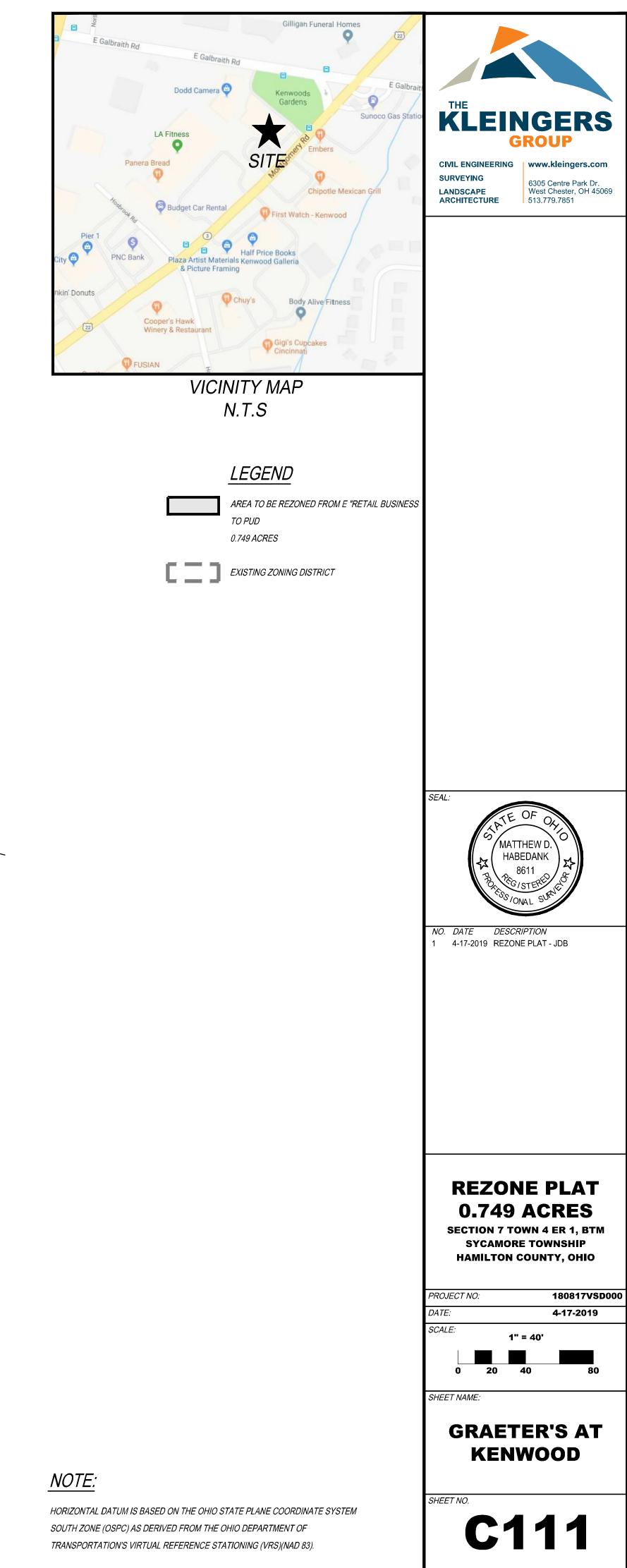
811 ar

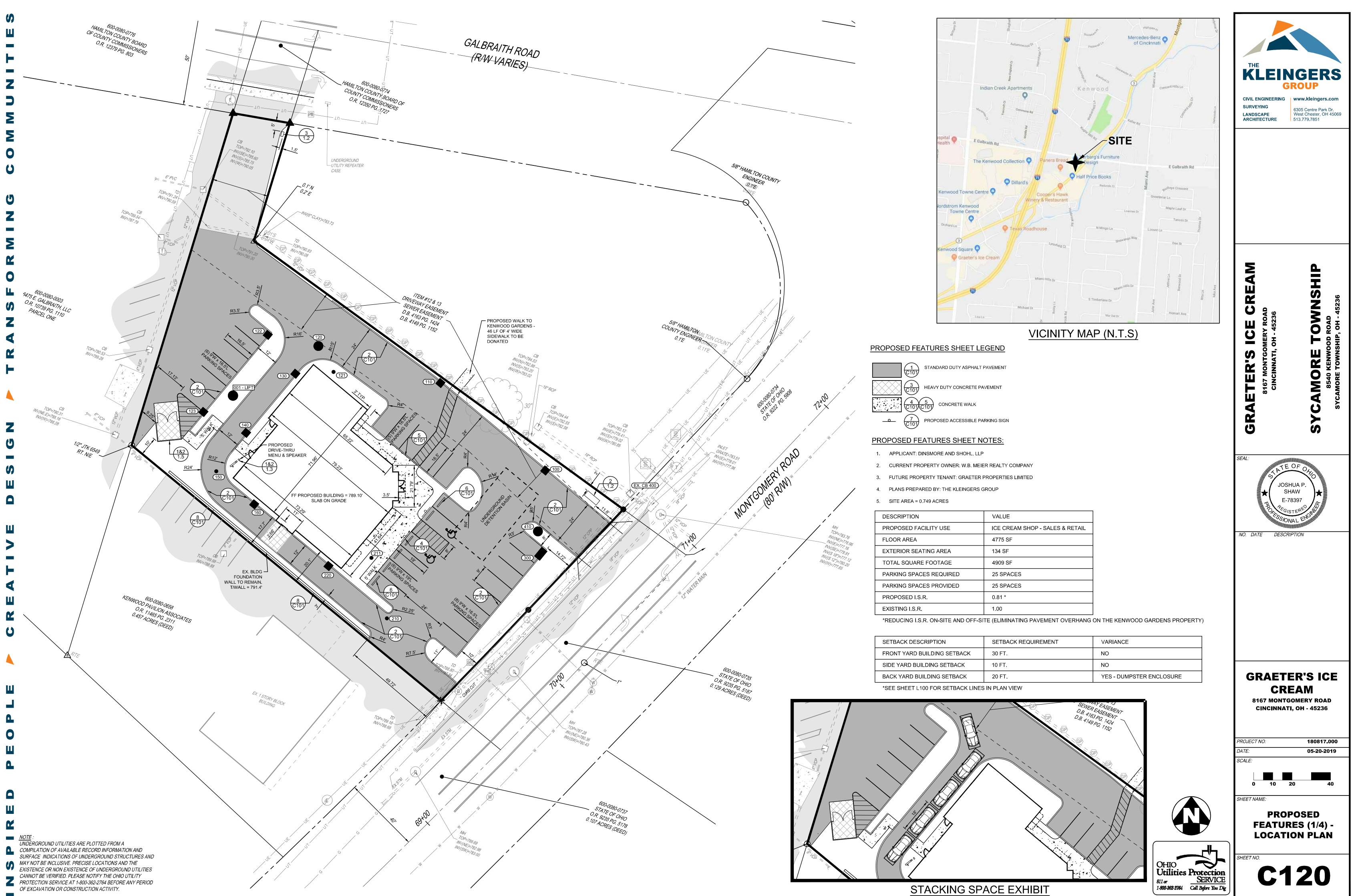






CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	DIRECTION	CHORD
C1	3779.69	65.50	0°59'34"	S43°53'29"W	65.50

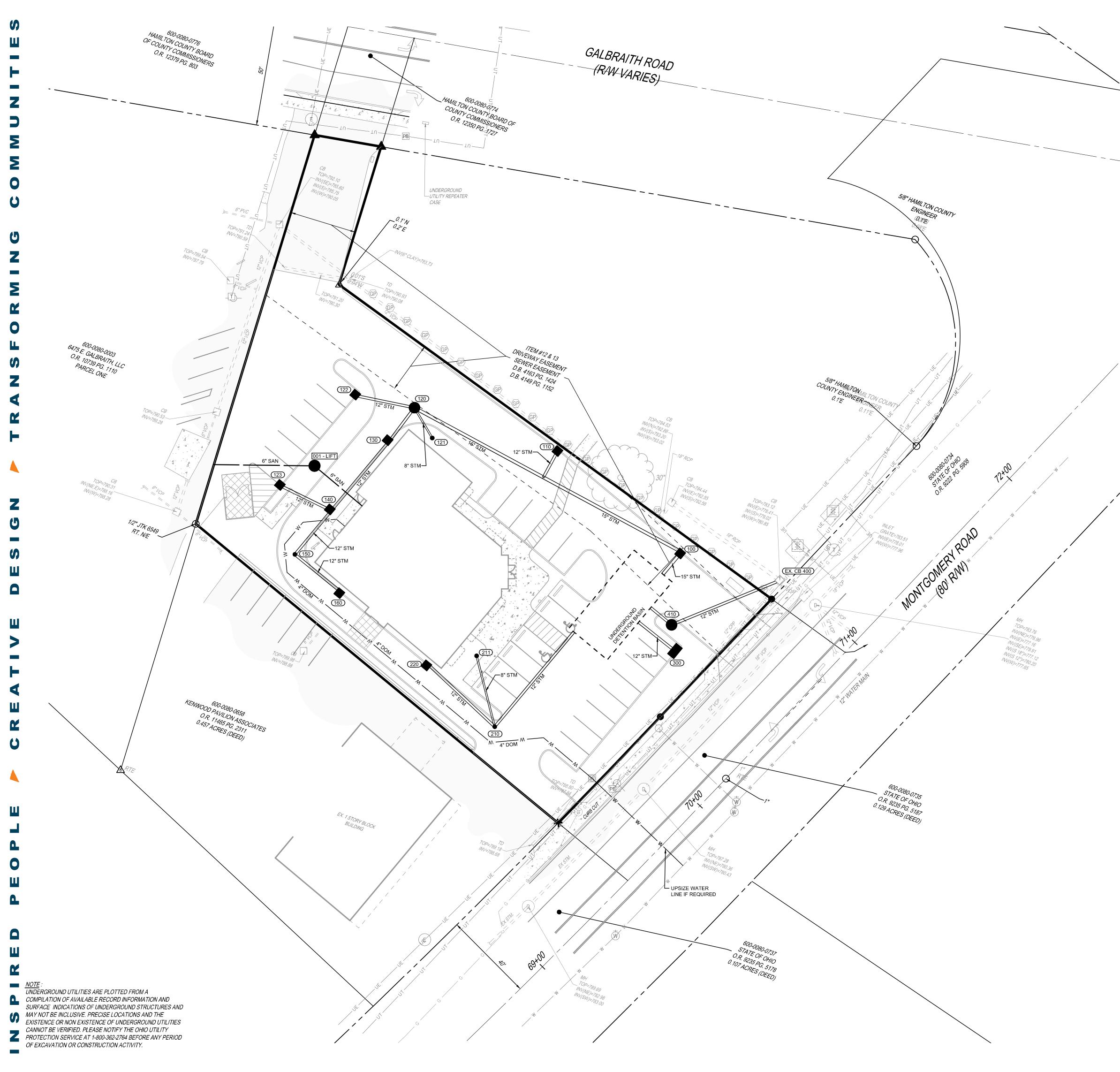


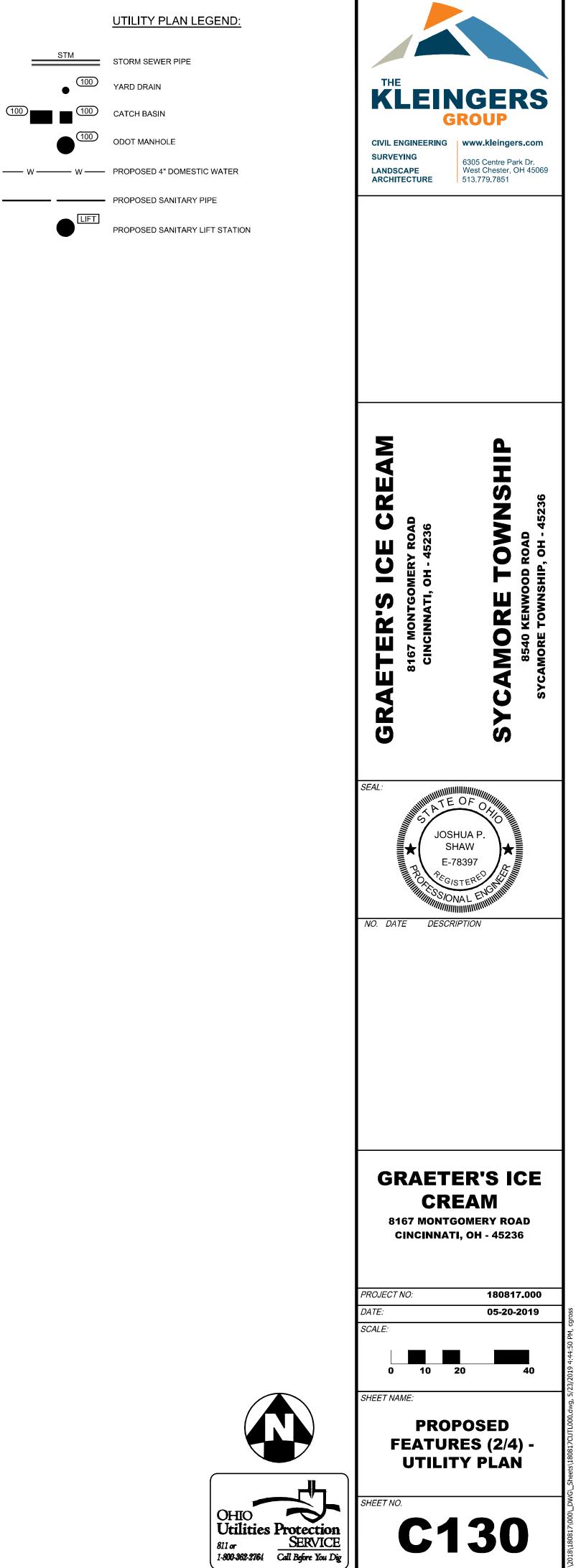


STACKING SPACE EXHIBIT

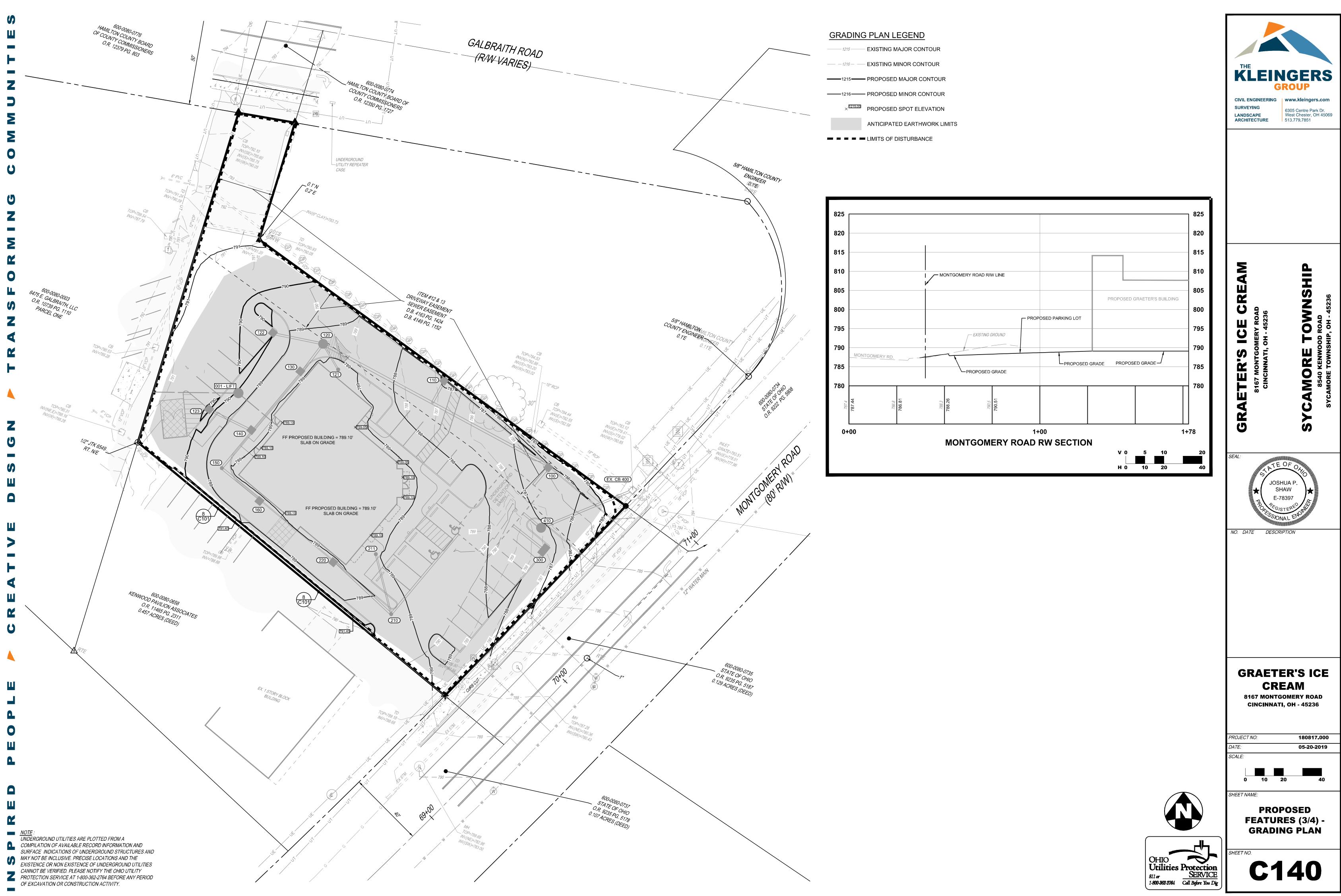
	VALUE	
SE	ICE CREAM SHOP - SALES & RETAIL	
	4775 SF	
EA	134 SF	
GE	4909 SF	
UIRED	25 SPACES	
VIDED	25 SPACES	
	0.81 *	
	1.00	

N	SETBACK REQUIREMENT	VARIANCE
G SETBACK	30 FT.	NO
SETBACK	10 FT.	NO
SETBACK	20 FT.	YES - DUMPSTER ENCLOSURE

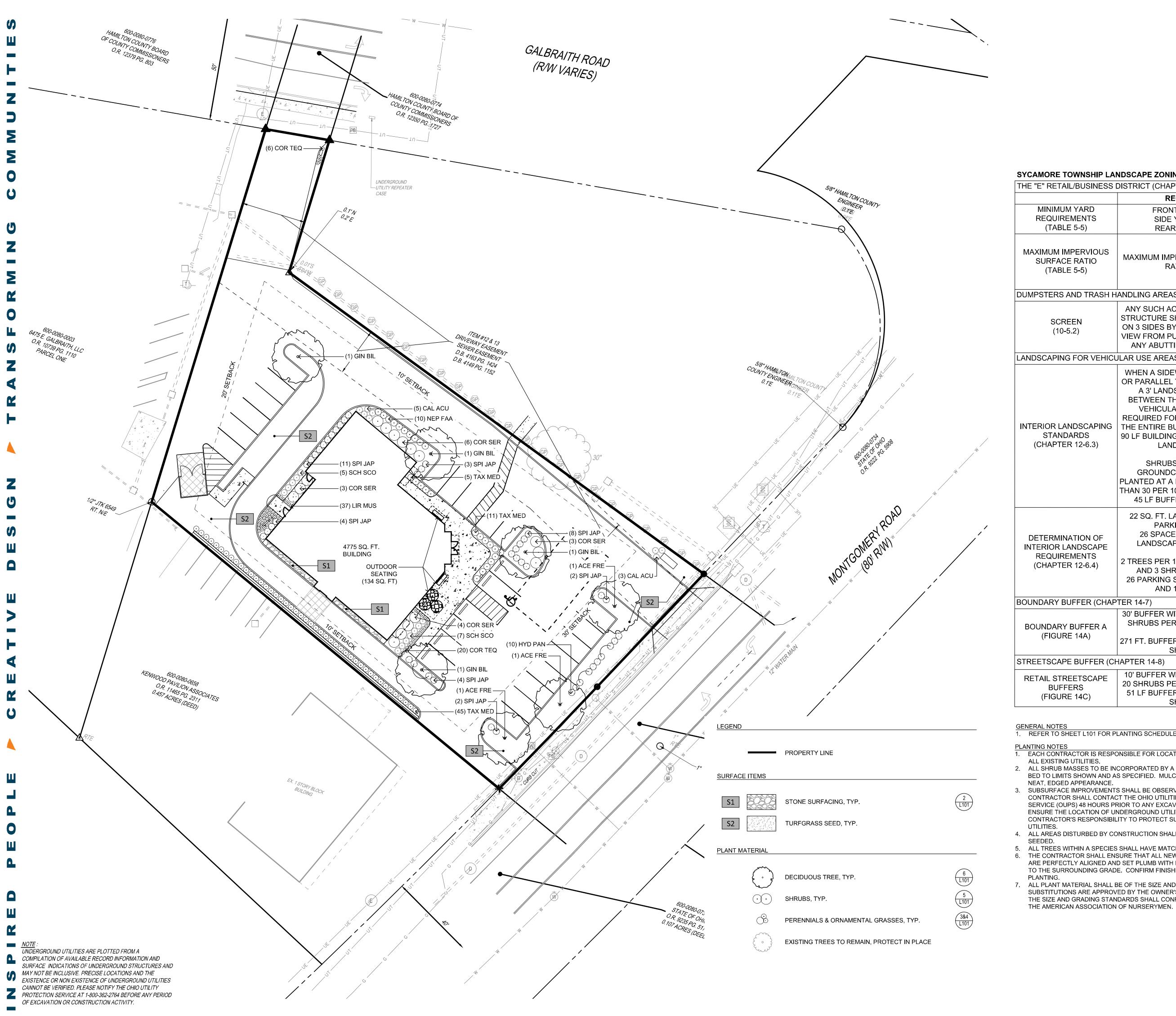




C130







KLEINGERS GROUP CIVIL ENGINEERING www.kleingers.com SURVEYING 6305 Centre Park Dr. West Chester, OH 45069 LANDSCAPE **ARCHITECTURE** 513.779.7851

SYCAMORE TOWNSHIP LANDSCAPE ZONING REQUIREMENTS

	DISTRICT (CHAPTER 5-3)	
	REQUIRED	PROPOSED
IUM YARD IREMENTS BLE 5-5)	FRONT YARD : 30' SIDE YARDS : 10' REAR YARD : 20'	PROVIDED
I IMPERVIOUS ACE RATIO BLE 5-5)	MAXIMUM IMPERVIOUS SURFACE RATIO : .50	32,621.5 SF PROPERTY 5,634.5 SF PERVIOUS SURFACE 26,987 SF IMPERVIOUS SURFACE .81 IMPERVIOUS
S AND TRASH H	ANDLING AREAS FOR COMMERCIAL	DISTRICTS (CHAPTER 10-5)
CREEN 10-5.2)	ANY SUCH ACCESSORY USE OR STRUCTURE SHALL BE SCREENED ON 3 SIDES BY A WALL FROM THE VIEW FROM PUBLIC STREETS AND ANY ABUTTING PROPERTIES.	REFER TO ARCHITECT'S DRAWINGS FOR SCREENING
ING FOR VEHICU	JLAR USE AREAS (CHAPTER 12-6)	
LANDSCAPING NDARDS TER 12-6.3)	WHEN A SIDEWALK IS ABUTTING OR PARALLEL TO A STOREFRONT, A 3' LANDSCAPING STRIP BETWEEN THE SIDEWALK AND VEHICULAR USE AREA IS REQUIRED FOR AT LEAST 50% OF THE ENTIRE BUILDING FRONTAGE. 90 LF BUILDING FRONTAGE = 45 LF LANDSCAPING SHRUBS AND OTHER GROUNDCOVER MUST BE PLANTED AT A RATIO OF NOT LESS THAN 30 PER 100 FEET OF BUFFER.	46 LF LANDSCAPE BED WITH 14 SHRUBS
1INATION OF	45 LF BUFFER = 14 SHRUBS 22 SQ. FT. LANDSCAPING PER PARKING SPACE 26 SPACES = 572 SQ. FT.	721 SQ. FT. LANDSCAPING
R LANDSCAPE IREMENTS TER 12-6.4)	LANDSCAPING REQUIRED 2 TREES PER 10 PARKING SPACES AND 3 SHRUBS PER TREE. 26 PARKING SPACES = 6 TREES AND 18 SHRUBS	PROVIDED 6 TREES AND 22 SHRUBS PROVIDED
BUFFER (CHAP	TER 14-7)	
RY BUFFER A JRE 14A)	30' BUFFER WITH 5 TREES AND 15 SHRUBS PER 100 LINEAR FEET 271 FT. BUFFER = 14 TREES AND 41 SHRUBS	BUFFER LANDSCAPING TO BE DEDICATED TO SYCAMORE TOWNSHIP
APE BUFFER (CH		
TREETSCAPE FFERS JRE 14C)	10' BUFFER WITH 1.5 TREES AND 20 SHRUBS PER 100 LINEAR FEET 51 LF BUFFER = 1 TREE AND 10 SHRUBS	1 TREES AND 10 SHRUBS PROVIDED

GENERAL NOTES
1. REFER TO SHEET L101 FOR PLANTING SCHEDULE AND DETAILS.

PLANTING NOTES
1. EACH CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING

2. ALL SHRUB MASSES TO BE INCORPORATED BY A CONTINUOUS MULCH BED TO LIMITS SHOWN AND AS SPECIFIED. MULCH BEDS TO HAVE A

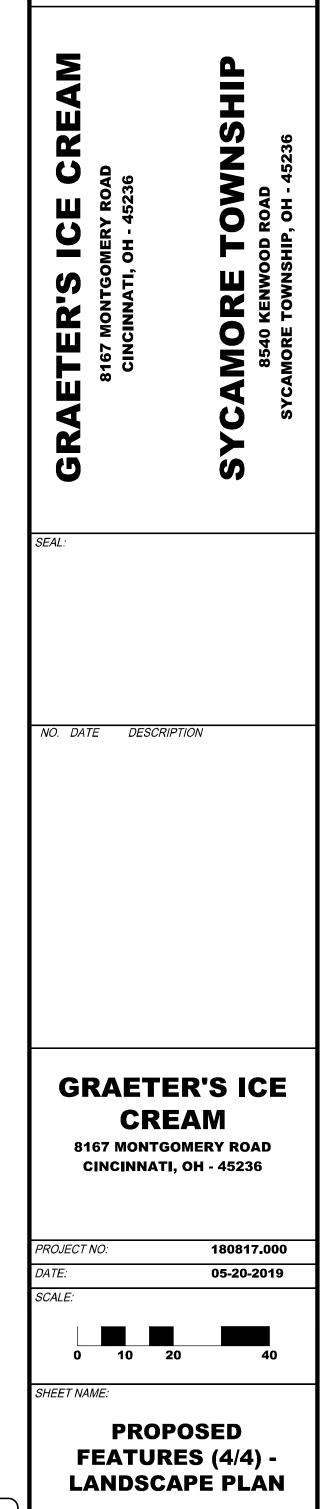
3. SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE

CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND

4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FINE GRADED AND

5. ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM. 6. THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP

TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO 7. ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF



SHEET NO.

L100

Utilities Protection 811 or SERVICE

1-800-362-2764 Call Before You Dig

OHIO

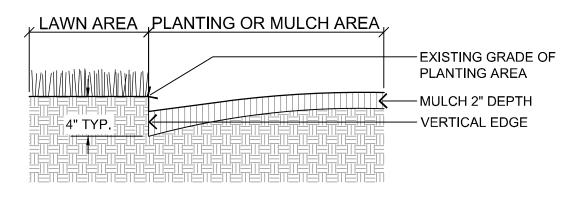
3

N.T.S.

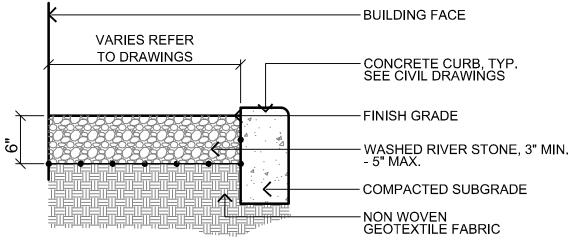
4 ORNA N.T.S.

5

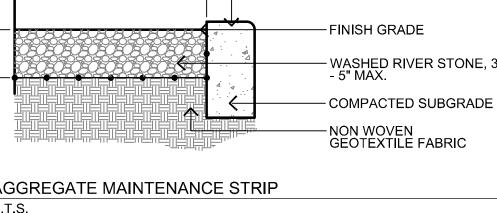
N.T.S.

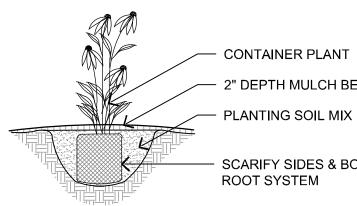


PLANTING BED EDGING DETAIL 1 <u>____</u> N.Т.S.



AGGREGATE MAINTENANCE STRIP $\begin{array}{c} 2 \\ \hline N.T.S. \end{array}$





PERENNIAL PLANTING

ORNAMENTAL GRASS PLANTING

PLANTING SOIL MIX

- CONTAINER PLANT

- PLANTING SOIL MIX

OF ROOT SYSTEM

- 2" DEPTH MULCH BED

- PLANTING SOIL MIX

- REMOVE BURLAP FROM

UPPER 1/2 OF ROOTBALL

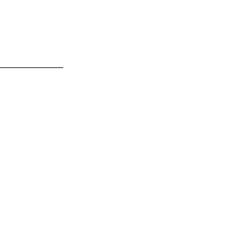
2" DEPTH MULCH BED

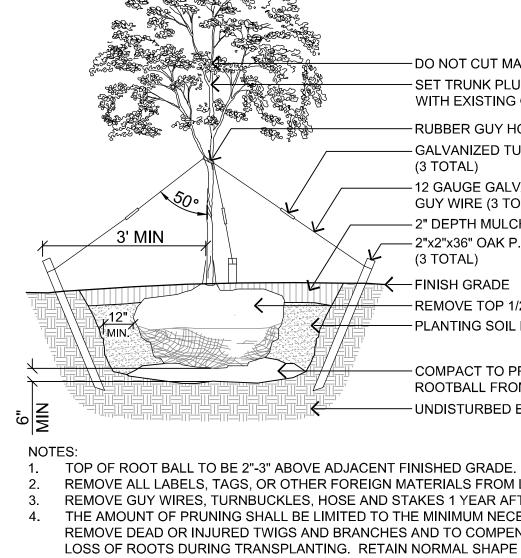
SCARIFY SIDES & BOTTOM

- 2" DEPTH MULCH BED

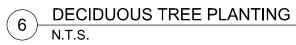


SCARIFY SIDES & BOTTOM OF





PLANT TREES AT SAME GRADE AS GROWN IN THE NURSERY.



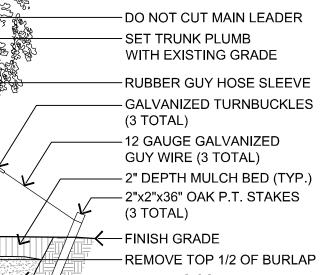
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES **CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD** OF EXCAVATION OR CONSTRUCTION ACTIVITY.

Can &

SHRUB PLANTING

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
DECIDUOL	IS TREES:				
ACE FRE	ACER FREEMANII 'JEFFSRED'	AUTUMN BLAZE RED MAPLE	2.5" CAL.	B&B	
GIN BIL	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	2.5" CAL.	B&B	
SHRUBS:					
COR SER	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE RED TWIG DOGWOOD	24" HT. MIN.	B&B	SPACE 36" O.C
HYD PAN	HYDRANGEA PANICULATA 'ILVOBO'	BOBO HYDRANGEA	18" HT. MIN.	CONT.	SPACE 36" O.C
SPI JAP	SPIRAEA JAPONICA 'GOLDMOUND'	GOLDMOUND SPIREA	18" HT. MIN.	CONT.	SPACE 36" O.C
TAX MED	TAXUS X MEDIA 'DENSIFORMIS'	DENSE YEW	30" HT. MIN.	B&B	SPACE 48" O.C
PERENNIA	LS:		T		1
COR TEQ	COREOPSIS 'TEQUILA SUNRISE'	TEQUILA SUNRISE TICKSEED	#1	CONT.	SPACE 18" O.C
LIR MUS	LIRIOPE MUSCARI VARIEGATA	VARIEGATED LIRIOPE	#2	CONT.	SPACE 18" O.C
	NEPETA FAASSENII 'CAT'S MEOW'	CAT'S MEOW CATMINT	#2	CONT.	PLANT 24" O.C.
NEP FAA					
	TAL GRASSES:				
	TAL GRASSES: CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	#3	CONT.	SPACE 36" O.C

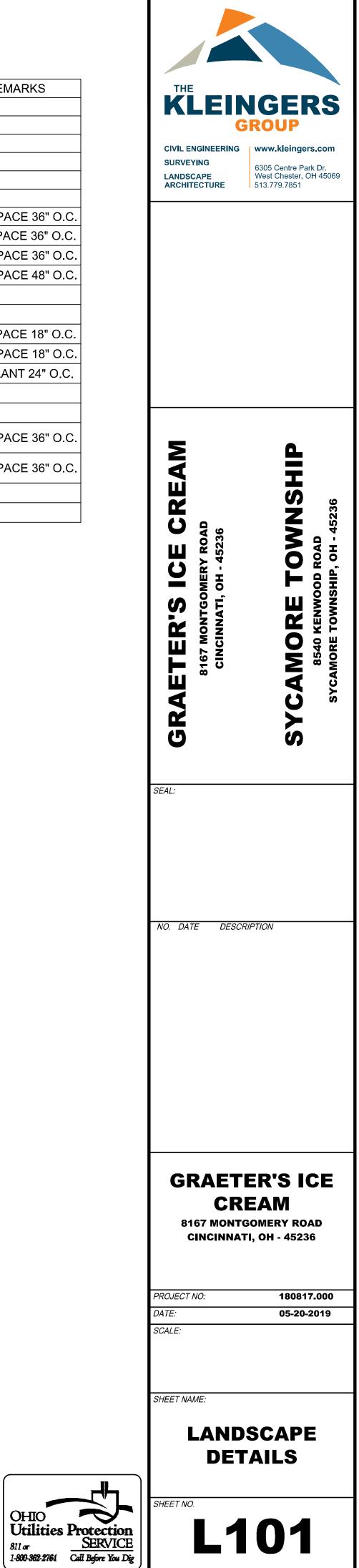
| TURF GRASS SEED: SEE SPECIFICATIONS



- PLANTING SOIL MIX - COMPACT TO PREVENT

ROOTBALL FROM SETTLING - UNDISTURBED EARTH

REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIALS FROM LIMBS. REMOVE GUY WIRES, TURNBUCKLES, HOSE AND STAKES 1 YEAR AFTER PLANTING. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS DURING TRANSPLANTING. RETAIN NORMAL SHAPE OF TREE. OWNER'S REPRESENTATIVE WILL DETERMINE AMOUNT OF PRUNING NECESSARY.



THE ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS

REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (CURRENT EDITION) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

SOIL-TESTING LABORATORY QUALIFICATIONS:

AN INDEPENDENT LABORATORY OR UNIVERSITY LABORATORY, RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN TYPES OF TESTS TO BE PERFORMED.

SOIL ANALYSIS:

FOR EACH UNAMENDED SOIL TYPE, FURNISH SOIL ANALYSIS AND A WRITTEN REPORT BY A QUALIFIED SOIL-TESTING LABORATORY STATING PERCENTAGES OF ORGANIC MATTER; GRADATION OF SAND, SILT, AND CLAY CONTENT; CATION EXCHANGE CAPACITY; DELETERIOUS MATERIAL; PH; AND MINERAL AND PLANT-NUTRIENT CONTENT OF THE SOIL. TESTING METHODS AND WRITTEN RECOMMENDATIONS SHALL COMPLY WITH USDA'S HANDBOOK NO. 60. THE SOIL-TESTING LABORATORY SHALL OVERSEE SOIL SAMPLING, WITH DEPTH, LOCATION, AND NUMBER OF SAMPLES TO BE TAKEN PER INSTRUCTIONS FROM ARCHITECT. A MINIMUM OF THREE REPRESENTATIVE SAMPLES SHALL BE TAKEN FROM VARIED LOCATIONS FOR EACH SOIL TO BE USED OR AMENDED FOR PLANTING PURPOSES. REPORT SUITABILITY OF TESTED SOIL FOR PLANT AND TURF GROWTH SPECIFIC TO THIS PROJECT. BASED ON THE TEST RESULTS, STATE RECOMMENDATIONS FOR SOIL TREATMENTS AND SOIL AMENDMENTS TO BE INCORPORATED. STATE RECOMMENDATIONS IN WEIGHT PER 1000 SQ. FT. OR VOLUME PER CU. YD. FOF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE SATISFACTORY PLANTING SOIL SUITABLE FOR HEALTHY, VIABLE PLANTS. REPORT PRESENCE OF PROBLEM SALTS, MINERALS, OR HEAVY METALS, INCLUDING ALUMINUM, ARSENIC, BARIUM, CADMIUM, CHROMIUM, COBALT, LEAD, LITHIUM, AND VANADIUM, IF SUCH PROBLEM MATERIALS ARE PRESENT. PROVIDE ADDITIONAL RECOMMENDATIONS FOR CORRECTIVE ACTION

PLANTING SOIL:

TOPSOIL STOCKPILED FROM ON-SITE STRIPPING SHALL BE UTILIZED FOR REUSE. AMEND ALL TOPSOIL ON-SITE BY MIXING WITH SAND AND COMPOST TO MANUFACTURE SPECIFIED SOIL MIX. IN THE EVENT THAT THERE IS AN INSUFFICIENT AMOUNT OF ON-SITE TOPSOIL TO COMPLETE THE PROJECT, ADDITIONAL TOPSOIL FROM OFF-SITE SOURCES SHALL BE PROVIDED FOR MIXING WITH SAND AND COMPOST TO MANUFACTURE THE SPECIFIED SOIL MIX. ANY AMENDMENTS USED TO MANUFACTURE A SOIL TO BE IMPORTED SHALL MEET THE SPECIFICATIONS DEFINED BELOW.

AMENDED TOPSOIL

5

THE ON-SITE SOIL OR ANY IMPORTED TOPSOIL SHALL BE AMENDED WITH THE SPECIFIED SAND OR COMPOST TO PRODUCE A SOIL MEETING THE FOLLOWING CRITERION, AS DETERMINED BY ASTM F1632 OR D422:

- SAND: (0.05 TO 2.0 MM) 65% 75% WITH AT LEAST 50% OF THE TOTAL SAND FALLING INTO THE MEDIUM AND COARSE SAND FRACTIONS AND NO MORE THAN 25% OF THE TOTAL SAND IN THE FIN AND VERY FINE SAND FRACTIONS.
- SILT: (0.002 TO 0.05 MM) 15% 25%
- CLAY: (<0.002 MM) 5% 15% GRAVEL: (>2.0 MM) <15% MAXIMUM SIZE SHALL BE THREE EIGHTS (3/8") INCHES LARGEST DIAMETER

THE AMENDED SOIL SHALL HAVE AN ORGANIC MATTER CONTENT OF 5 TO 6% (BY WEIGHT) AS DETERMINED BY ASTM F1647. FOR BIDDING PURPOSES, THE AMOUNT OF COMPOST REQUIRED TO INCREASE THE ORGANIC MATTER CONTENT TO MEET THE SPECIFICATIONS CAN RANGE FROM 30 TO 50% BY VOLUME, DEPENDING ON THE QUALITY OF THE COMPOST.

RATIO OF THE PARTICLE SIZE FOR 80% PASSING (D80) TO THE PARTICLE SIZE FOR 30% PASSING (D30) SHALL BE 5.5 OR LESS (D80/D30 <8).

THE AMENDED SOIL SHALL HAVE A MINIMUM PERCOLATION RATE OF 0.50-INCH PER HOUR WITH THE SOIL COMPACTED TO 88% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D698).

THE PLANTING SOIL MEETING THIS SPECIFICATION SHALL SERVE AS THE BASELINE FOR SUBSEQUENT QUALITY CONTROL TESTING. SAMPLES SHALL BE TAKEN EVERY 1000 YARDS FOR CONFORMITY TO THE SPECIFICATIONS. QUALITY CONTROL TESTING SHALL INCLUDE ORGANIC MATTER CONTENT AND PARTICLE SIZE ANALYSIS.

THE FINAL SOIL MIX SHALL BE SUBMITTED TO TESTING AGENCY TO DETERMINE THE FERTILITY STATUS OF THE SOIL

SAND SHALL BE BLENDED INTO THE TOPSOIL IN THE PROPER AMOUNT TO ACHIEVE THE PARTICLE SIZE DISTRIBUTION DESCRIBED IN THESE SPECIFICATIONS. SAND FOR USE AS A SOIL AMENDMENT SHALL BE WASHED NATURAL OR CLASSIFIED SAND MEETING THE FOLLOWING PARTICLE SIZE DISTRIBUTION AS DETERMINED BY ASTM C-136 OR F1632. IN ADDITION, THE SAND SHALL HAVE A COEFFICIENT OF UNIFORMITY (D60/D10) OF LESS THAN 4.0.

SIEVE	SIEVE SIZE	% PASSING
NO. 4	4.75 MM	100%
NO. 8	2.38 MM	90 - 100%
NO. 16	1.19 MM	80 - 100%
NO. 30	0.60 MM	25 - 60%
NO. 50	0.30 MM	0 - 25%
NO. 100	0.15 MM	0 - 5%
NO. 270	0.075 MM	0 - 3%

PLANTING SOIL MAY BE ALTERED, UPON APPROVAL OF THE ENGINEER, BY ADDING APPROVED CONDITIONERS. CONDITIONERS SHALL CONFORM TO ODOT ITEM 653 AS DETERMINED BY THE ENGINEER.

MIXING PLANTING SOIL: SOIL ADDITIVES SHALL BE THOROUGHLY INCORPORATED INTO PLANTING SOIL BY HARROWING OR OTHER METHODS STANDARD TO THE INDUSTRY. CORRECT DEFICIENCIES IN SOIL AS DIRECTED BY HORTICULTURAL SOIL TEST RESULTS. THOROUGHLY INCORPORATE AMENDMENTS INTO PLANTING MIXTURE TO ENSURE EVEN DISTRIBUTION.

PREPARATION OF THE SUBGRADE IN LANDSCAPE AREAS:

PRIOR TO THE PLACEMENT OF PLANTING SOIL AND THE ESTABLISHMENT OF THE FINISHED GRADE, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO INSPECT THE SUBGRADE FOR SUITABILITY FOR PLANTING. IF SUBSURFACE BEDROCK, SHALE, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN THE SUBGRADE, THE ENGINEER MAY SELECT ALTERNATE LOCATIONS FOR PLANT PLACEMENTS. WHERE LOCATIONS CANNOT BE CHANGED, THE UNSUITABLE MATERIAL OR OBSTRUCTION SHALL BE REMOVED TO A DEPTH, NO LESS, THAN 6" BELOW BOTTOM OF THE ROOT BALL WHEN THE PLANT IS PROPERLY SET AT THE REQUIRED GRADE. THE ADDITIONAL EXCAVATION SHALL BE FILLED WITH A SUITABLE CLEAN SOIL MATERIAL FREE OF ROCK AND CONSTRUCTION DEBRIS AND SUITABLE FOR THE PLANTING SUBGRADE AS DETERMINED BY THE ENGINEER.

PLANTING SOIL PLACEMENT: PLACE PLANTING SOIL IN TWO LIFTS. PLACE THE FIRST LIFT TO A DEPTH OF 2 INCHES AND HARROW OR TILL THE LOAM INTO THE UNDERLYING SUBSOIL TO A DEPTH OF 2 INCHES, CREATING A BLENDED INTERFACE OF LOAM AND SUBSOIL APPROXIMATELY 4 INCHES DEEP. THE CONTRACTOR SHALL INSTALL PLANTING SOIL IN SUCCESSIVE HORIZONTAL LIFTS NO THICKER THAN 6 INCHES IN TURF AREAS AND 12 INCHES IN PLANT BED AREAS TO THE DESIRE COMPACTION AS DESCRIBED HEREIN. THE CONTRACTOR SHALL INSTALL THE SOIL AT A HIGHER LEVEL TO ANTICIPATE ANY REDUCTION OF PLANTING SOIL VOLUME DUE TO COMPACTION, SETTLING, EROSION, DECOMPOSITION, AND OTHER SIMILAR PROCESSES DURING THE WARRANTY PERIOD.

PLANTING SOIL DEPTHS:

LARGE CANOPY TREES AND EVERGREENS:	
SINGLE TREES:	500 CUBIC FEET PER TREE
TREES IN GROUPS OF 2 OR MORE:	350 CUBIC FEET PER TREE

FLOWERING AND ORNAMENTAL TRESS:	
SINGLE TREES:	300 CUBIC FEET PER TREE
TREES IN GROUPS OF 2 OR MORE:	200 CUBIC FEET PER TREE

PLANTING SOIL SHALL BE PLACED TO A DEPTH OF 12 INCHES IN ALL PLANTING BEDS CONTAINING SHRUBS, PERENNIALS, ORNAMENTAL GRASSES AND GROUNDCOVER. PLANTING SOIL SHALL BE A MINIMUM OF 6 INCHES IN DEPTH IN ALL TURF GRASS AREAS.

UNDEREGRAVATION LITES ARE PLOTTED FROM A UNDEREGRAVATION OF FOR THE PROMATION AND COMPLETED PLANTING SEASON SUBFACTION OF THE PLOTTED FOR THE PLANTING SEASON SUBFACTION OF THE PLANTING PLANTING SEASON SUBFACTION OF THE PLANTING PLANTING SEASON SUBFACTION OF THE PLANTING SEASON SUBFACTION

PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD

OF EXCAVATION OR CONSTRUCTION ACTIVITY.

PLANTS

DEFINITIONS

- THE BALL AS RECOMMENDED BY ANSI Z60.1.
- ACCORDING TO ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED.
- 4. FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL
- SOURCES CLASSIFY HERBICIDES SEPARATELY FROM PESTICIDES.
- FUNGI, BACTERIA, AND VIRUSES. 7. PLANTING AREA: AREAS TO BE PLANTED.
- MIXTURE BEST FOR PLANT GROWTH.
- TUBERS, OR HERBACEOUS VEGETATION.
- BETWEEN THE ROOT SYSTEM AND THE STEM OR TRUNK.
- SOIL SURFACE.

COORDINATION

COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM INDICATED. DATE OF SUBSTANTIAL COMPLETION. 1. WHEN PLANTING TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT 1. SPRING PLANTING: MARCH 15 TO JUNE 1. TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.

PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

ACTION SUBMITTALS

- PRODUCT DATA: FOR EACH TYPE OF PRODUCT. 1. PLANT PHOTOGRAPHS: INCLUDE COLOR PHOTOGRAPHS IN DIGITAL FORMAT OF EACH REQUIRED SPECIES AND SIZE OF PLANT MATERIAL AS IT WILL BE FURNISHED TO PROJECT. TAKE PHOTOGRAPHS FROM AN ANGLE DEPICTING TRUE SIZE AND CONDITION OF THE TYPICAL PLANT TO BE FURNISHED. INCLUDE A SCALE ROD OR OTHER MEASURING DEVICE IN EACH
- PHOTOGRAPH. FOR SPECIES WHERE MORE THAN 20 PLANTS ARE REQUIRED, INCLUDE A MINIMUM OF THREE PHOTOGRAPHS SHOWING THE AVERAGE PLANT, THE BEST QUALITY PLANT, AND THE WORST QUALITY PLANT TO BE FURNISHED. IDENTIFY EACH PHOTOGRAPH WITH THE FULL SCIENTIFIC NAME OF THE PLANT, PLANT SIZE, AND NAME OF THE GROWING NURSERY. 2. SAMPLES FOR VERIFICATION: FOR EACH OF THE FOLLOWING: **1.1. ORGANIC** MULCH: **1-QUART** VOLUME OF EACH ORGANIC MULCH REQUIRED; IN SEALED
- PLASTIC BAGS LABELED WITH COMPOSITION OF MATERIALS BY PERCENTAGE OF WEIGHT AND SOURCE OF MULCH. EACH SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE FURNISHED; PROVIDE AN ACCURATE REPRESENTATION OF COLOR, TEXTURE, AND ORGANIC MAKEUP.

INFORMATIONAL SUBMITTALS

- QUALIFICATION DATA: FOR LANDSCAPE INSTALLER. INCLUDE LIST OF SIMILAR PROJECTS COMPLETED BY INSTALLER DEMONSTRATING INSTALLER'S CAPABILITIES AND EXPERIENCE. INCLUDE PROJECT NAMES, ADDRESSES, AND YEAR COMPLETED, AND INCLUDE NAMES AND ADDRESSES OF OWNERS' CONTACT PERSONS.
- 2. PRODUCT CERTIFICATES: FOR EACH TYPE OF MANUFACTURED PRODUCT, FROM MANUFACTURER, AND COMPLYING WITH THE FOLLOWING:
- 1.1. MANUFACTURER'S CERTIFIED ANALYSIS OF STANDARD PRODUCTS 1.2. ANALYSIS OF OTHER MATERIALS BY A RECOGNIZED LABORATORY MADE ACCORDING TO METHODS ESTABLISHED BY THE ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, WHERE
- APPLICABLE. 2. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION
- INSTRUCTIONS SPECIFIC TO PROJECT. 3. SAMPLE WARRANTY: FOR SPECIAL WARRANTY
- CLOSEOUT SUBMITTALS
- 1. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF PLANTS DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF PLANTS. 1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER

- THE PROFESSIONAL LANDCARE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- 2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN LANDSCAPE INSTALLATION IN ADDITION TO **REQUIREMENTS IN SECTION 014000 "QUALITY REQUIREMENTS."**
- 3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
- 4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDCARE NETWORK:
 - a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN EXTERIOR.
 - b. LANDSCAPE INDUSTRY CERTIFIED HORTICULTURAL TECHNICIAN.
- 5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL,

PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1.

MEASUREMENTS: MEASURE ACCORDING TO ANSI Z60.1. DO NOT PRUNE TO OBTAIN REQUIRED SIZES

- 1. TREES AND SHRUBS: MEASURE WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. TAKE HEIGHT MEASUREMENTS FROM OR NEAR THE TOP OF THE ROOT FLARE FOR FIELD-GROWN STOCK AND CONTAINER-GROWN STOCK. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP TO TIP. TAKE CALIPER MEASUREMENTS 6 INCHES ABOVE THE ROOT FLARE FOR TREES UP TO 4-INCH CALIPER
- SIZE, AND 12 INCHES ABOVE THE ROOT FLARE FOR LARGER SIZES. 2. OTHER PLANTS: MEASURE WITH STEMS, PETIOLES, AND FOLIAGE IN THEIR NORMAL POSITION.

PLANT MATERIAL OBSERVATION: ARCHITECT MAY OBSERVE PLANT MATERIAL EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, CULTIVAR, SIZE, AND QUALITY. ARCHITECT MAY ALSO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, PESTS, DISEASE SYMPTOMS, INJURIES, AND LATENT DEFECTS AND MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE. 1. NOTIFY ARCHITECT OF SOURCES OF PLANTING MATERIALS SEVEN DAYS IN ADVANCE OF DELIVERY TO SITE.

DELIVERY, STORAGE, AND HANDLING PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS

1. BACKFILL: THE EARTH USED TO REPLACE OR THE ACT OF REPLACING EARTH IN AN EXCAVATION. 2. BALLED AND BURLAPPED STOCK: PLANTS DUG WITH FIRM, NATURAL BALLS OF EARTH IN WHICH THEY WERE GROWN, WITH A BALL SIZE NOT LESS THAN DIAMETER AND DEPTH RECOMMENDED BY ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED: WRAPPED WITH BURLAP. TIED. RIGIDLY SUPPORTED, AND DRUM LACED WITH TWINE WITH THE ROOT FLARE VISIBLE AT THE SURFACE OF

3. CONTAINER-GROWN STOCK: HEALTHY, VIGOROUS, WELL-ROOTED PLANTS GROWN IN A CONTAINER, WITH A WELL-ESTABLISHED ROOT SYSTEM REACHING SIDES OF CONTAINER AND MAINTAINING A FIRM BALL WHEN REMOVED FROM CONTAINER. CONTAINER SHALL BE RIGID ENOUGH TO HOLD BALL SHAPE AND PROTECT ROOT MASS DURING SHIPPING AND BE SIZED

5. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING. DESTROYING. REPELLING. OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDE SUBSTANCES OR MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT. SOME

6. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS),

8. PLANTING SOIL: EXISTING, ON-SITE SOIL; IMPORTED SOIL; OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL

9. PLANT; PLANTS; PLANT MATERIAL: THESE TERMS REFER TO VEGETATION IN GENERAL INCLUDING TREES, SHRUBS, VINES, GROUND COVERS, ORNAMENTAL GRASSES, BULBS, CORMS,

10.ROOT FLARE: ALSO CALLED "TRUNK FLARE." THE AREA AT THE BASE OF THE PLANT'S STEM OR TRUNK WHERE THE STEM OR TRUNK BROADENS TO FORM ROOTS; THE AREA OF TRANSITION

11.STEM GIRDLING ROOTS: ROOTS THAT ENCIRCLE THE STEMS (TRUNKS) OF TREES BELOW THE

12.SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

2. FALL PLANTING: SEPTEMBER 1 TO NOVEMBER 15.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.

WARRANTY

SPECIAL WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD. 1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- a. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE, OR NEGLECT BY OWNER.
- b. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
- c. FAULTY PERFORMANCE OF TREE STABILIZATION.
- d. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING.
- 2. WARRANTY PERIODS: FROM DATE OF SUBSTANTIAL COMPLETION.
 - a. TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS
 - b. GROUND COVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS.
- c. ANNUALS: THREE MONTHS.
- 3. INCLUDE THE FOLLOWING REMEDIAL ACTIONS AS A MINIMUM:
 - a. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
 - b. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
 - c. A LIMIT OF ONE REPLACEMENT OF EACH PLANT IS REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
 - d. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD. FOR REPLACED PLANT MATERIAL

PLANT MATERIAL

GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT LIST, PLANT SCHEDULE, OR PLANT LEGEND INDICATED ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED. FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

- 1. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 3/4 INCH IN DIAMETER; OR WITH STEM GIRDLING ROOTS ARE UNACCEPTABLE.
- 2. COLLECTED STOCK: DO NOT USE PLANTS HARVESTED FROM THE WILD, FROM NATIVE STANDS. FROM AN ESTABLISHED LANDSCAPE PLANTING, OR NOT GROWN IN A NURSERY UNLESS OTHERWISE INDICATED.

PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.

ROOT-BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH BEGINS AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

LABELING: LABEL EACH PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT.

IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS INDICATED ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.

FERTILIZERS: REFER TO PLANTING SOIL SPECIFICATION.

MULCHES

ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF ONE OF THE FOLLOWING:

1. TYPE: DOUBLE-SHREDDED HARDWOOD. 2. SIZE RANGE: 3 INCHES MAXIMUM, 1/2 INCH MINIMUM.

3. COLOR: NATURAL.

PESTICIDES

GENERAL: PESTICIDE REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE

SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE.

BULK MATERIALS:

- 1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
- 2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS; DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.

3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND HANDLING.

HANDLE PLANTING STOCK BY ROOT BALL.

WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND TRANSPORTATION.

DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.

- 1. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
- 2. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING. 3. WATER ROOT SYSTEMS OF PLANTS STORED ON-SITE DEEPLY AND THOROUGHLY WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST. BUT NOT OVERLY WET CONDITION.

FIELD CONDITIONS

FIELD MEASUREMENTS: VERIFY ACTUAL GRADE ELEVATIONS, SERVICE AND UTILITY LOCATIONS, IRRIGATION SYSTEM COMPONENTS, AND DIMENSIONS OF PLANTINGS AND CONSTRUCTION CONTIGUOUS WITH NEW PLANTINGS BY FIELD MEASUREMENTS BEFORE PROCEEDING WITH PLANTING WORK.

RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.

POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

TREE-STABILIZATION MATERIALS TRUNK-STABILIZATION MATERIALS

- 1. UPRIGHT AND GUY STAKES: ROUGH-SAWN, SOUND, NEW HARDWOOD, FREE OF KNOTS, HOLES, CROSS GRAIN, AND OTHER DEFECTS, 2-BY-2-INCH NOMINAL BY LENGTH INDICATED, POINTED AT ONE END.
- 2. FLEXIBLE TIES: WIDE RUBBER OR ELASTIC BANDS OR STRAPS OF LENGTH REQUIRED TO REACH STAKES OR TURNBUCKLES. 3. GUYS AND TIE WIRES: ASTM A 641/A 641M, CLASS 1, GALVANIZED-STEEL WIRE, TWO-STRAND,
- TWISTED, 0.106 INCH IN DIAMETER. 4. TREE-TIE WEBBING: UV-RESISTANT POLYPROPYLENE OR NYLON WEBBING WITH BRASS GROMMETS.
- 5. GUY CABLES: FIVE-STRAND, 3/16-INCH-DIAMETER, GALVANIZED-STEEL CABLE, WITH ZINC-COATED **TURNBUCKLES**, A MINIMUM OF 3 INCHES LONG, WITH TWO 3/8-INCH GALVANIZED EYEBOLTS.
- 6. FLAGS: STANDARD SURVEYOR'S PLASTIC FLAGGING TAPE, WHITE, 6 INCHES LONG.

MISCELLANEOUS PRODUCTS BURLAP: NON-SYNTHETIC, BIODEGRADABLE.

EXAMINATION

- EXAMINE AREAS TO RECEIVE PLANTS. WITH INSTALLER PRESENT. FOR COMPLIANCE WITH
- REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK. 1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
- 2. VERIFY THAT PLANTS AND VEHICLES LOADED WITH PLANTS CAN TRAVEL TO PLANTING LOCATIONS WITH ADEQUATE OVERHEAD CLEARANCE.
- 3. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
- 4. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.

IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

PREPARATION

SPECIFICATION

PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES AND TURF AREAS AND EXISTING PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.

INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

PLANTING AREA ESTABLISHMENT

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL SPECIFICATIONS.

PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL

BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

EXCAVATION FOR TREES AND SHRUBS

- PLANTING PITS AND TRENCHES: EXCAVATE CIRCULAR PLANTING PITS. 1. EXCAVATE PLANTING PITS WITH SIDES SLOPING INWARD AT A 45-DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE UNACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING CENTER AREA OF BOTTOM RAISED SLIGHTLY TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE AWAY FROM CENTER, DO NOT FURTHER DISTURB BASE, ENSURE THAT ROOT BALL WILL SIT ON UNDISTURBED BASE SOIL TO PREVENT SETTLING. SCARIFY SIDES OF PLANTING PIT SMEARED OR
- SMOOTHED DURING EXCAVATION. 2. EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR BALLED AND BURLAPPED AND CONTAINER-GROWN STOCK.
- 3. DO NOT EXCAVATE DEEPER THAN DEPTH OF THE ROOT BALL, MEASURED FROM THE ROOT FLARE TO THE BOTTOM OF THE ROOT BALL
- 4. IF AREA UNDER THE PLANT WAS INITIALLY DUG TOO DEEP. ADD SOIL TO RAISE IT TO THE
- CORRECT LEVEL AND THOROUGHLY TAMP THE ADDED SOIL TO PREVENT SETTLING. 5. MAINTAIN ANGLES OF REPOSE OF ADJACENT MATERIALS TO ENSURE STABILITY. DO NOT EXCAVATE SUBGRADES OF ADJACENT PAVING, STRUCTURES, HARDSCAPES, OR OTHER NEW OR EXISTING IMPROVEMENTS.
- 6. MAINTAIN SUPERVISION OF EXCAVATIONS DURING WORKING HOURS. 7. KEEP EXCAVATIONS COVERED OR OTHERWISE PROTECTED WHEN UNATTENDED BY **INSTALLER'S PERSONNEL**

BACKFILL SOIL: SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS **MAY NOT** BE USED AS BACKFILL SOIL UNLESS OTHERWISE INDICATED.

OBSTRUCTIONS: NOTIFY ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.

1. HARDPAN LAYER: DRILL 6-INCH-DIAMETER HOLES, 24 INCHES APART, INTO FREE-DRAINING STRATA OR TO A DEPTH OF 10 FEET, WHICHEVER IS LESS, AND BACKFILL WITH FREE-DRAINING MATERIAL.

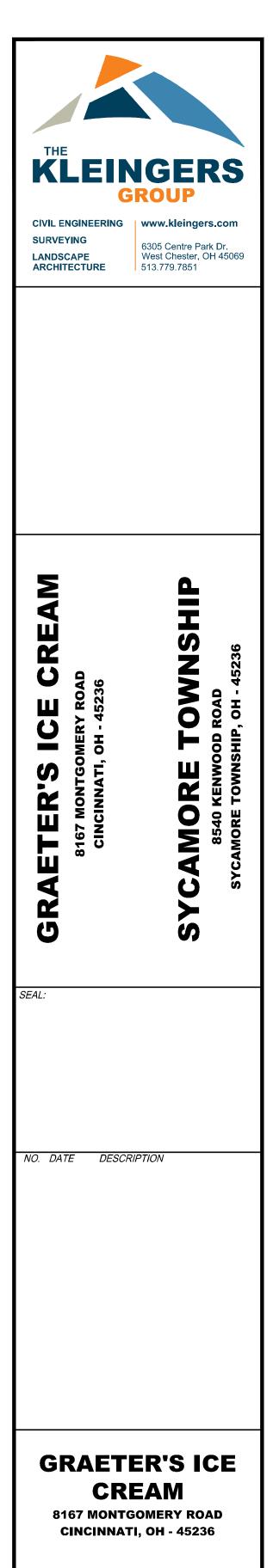
DRAINAGE: NOTIFY ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PLANTING PITS.

TREE, SHRUB, AND VINE PLANTING

INSPECTION: AT TIME OF PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK. AFTER SOIL REMOVAL TO EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.

ROOTS: REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVE INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK.





PROJECT NO:	180817.000
DATE:	05-20-2019
SCALE:	

SHEET NAME:

LANDSCAPE SPECIFICATIONS

SHEET NO.



PLANTS, CONT.

BALLED AND BURLAPPED STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH ABOVE ADJACENT FINISH GRADES.

- 1. BACKFILL: PLANTING SOIL PER SECTION 329113 "PLANTING SOILS."
- 2. AFTER PLACING SOME BACKFILL AROUND ROOT BALL TO STABILIZE PLANT, CAREFULLY CUT AND REMOVE BURLAP, ROPE, AND WIRE BASKETS FROM TOPS OF ROOT BALLS AND FROM SIDES, BUT DO NOT REMOVE FROM UNDER ROOT BALLS. REMOVE PALLETS, IF ANY, BEFORE SETTING. DO NOT USE PLANTING STOCK IF ROOT BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
- 3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS, WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
- 4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

CONTAINER-GROWN STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE **1 INCH ABOVE** ADJACENT FINISH GRADES. 1. BACKFILL: PLANTING SOIL PER SECTION 329113 "PLANTING SOILS."

- 2. CAREFULLY REMOVE ROOT BALL FROM CONTAINER WITHOUT DAMAGING ROOT BALL OR PLANT. 3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS
- ABSORBED. 4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

SLOPES: WHEN PLANTING ON SLOPES, SET THE PLANT SO THE ROOT FLARE ON THE UPHILL SIDE IS FLUSH WITH THE SURROUNDING SOIL ON THE SLOPE; THE EDGE OF THE ROOT BALL ON THE DOWNHILL SIDE WILL BE ABOVE THE SURROUNDING SOIL. APPLY ENOUGH SOIL TO COVER THE DOWNHILL SIDE OF THE ROOT BALL.

MECHANIZED TREE-SPADE PLANTING

- 1. TREES **MAY** BE PLANTED WITH AN APPROVED MECHANIZED TREE SPADE AT THE DESIGNATED LOCATIONS. DO NOT USE TREE SPADE TO MOVE TREES LARGER THAN THE MAXIMUM SIZE ALLOWED FOR A SIMILAR FIELD-GROWN, BALLED-AND-BURLAPPED ROOT-BALL DIAMETER ACCORDING TO ANSI Z60.1, OR LARGER THAN MANUFACTURER'S MAXIMUM SIZE RECOMMENDATION FOR THE TREE SPADE BEING USED, WHICHEVER IS SMALLER.
- 2. USE THE SAME TREE SPADE TO EXCAVATE THE PLANTING HOLE AS WILL BE USED TO EXTRACT AND TRANSPORT THE TREE.
- 3. WHEN EXTRACTING THE TREE, CENTER THE TRUNK WITHIN THE TREE SPADE AND MOVE TREE WITH A SOLID BALL OF EARTH.
- 4. CUT EXPOSED ROOTS CLEANLY DURING TRANSPLANTING OPERATIONS.
- 5. PLANT TREES FOLLOWING PROCEDURES IN "TREE, SHRUB, AND VINE PLANTING" ARTICLE. 6. WHERE POSSIBLE, ORIENT THE TREE IN THE SAME DIRECTION AS IN ITS ORIGINAL LOCATION.

TREE, SHRUB, AND VINE PRUNING

- 1. REMOVE ONLY DEAD, DYING, OR BROKEN BRANCHES. DO NOT PRUNE FOR SHAPE.
- 2. DO NOT APPLY PRUNING PAINT TO WOUNDS.

TREE STABILIZATION

TRUNK STABILIZATION BY STAKING AND GUYING: INSTALL TRUNK STABILIZATION AS FOLLOWS UNLESS OTHERWISE INDICATED ON DRAWINGS. STAKE AND GUY TREES MORE THAN 12 FEET IN HEIGHT AND MORE THAN 3 INCHES IN CALIPER UNLESS OTHERWISE INDICATED.

- 1. SITE-FABRICATED, STAKING-AND-GUYING METHOD: INSTALL NO FEWER THAN THREE GUYS SPACED EQUALLY AROUND TREE.
 - a. SECURELY ATTACH GUYS TO STAKES 36 INCHES LONG, DRIVEN TO GRADE. ADJUST SPACING TO AVOID PENETRATING ROOT BALLS OR ROOT MASSES. PROVIDE TURNBUCKLE FOR EACH GUY WIRE AND TIGHTEN SECURELY.
 - b. SUPPORT TREES WITH BANDS OF FLEXIBLE TIES AT CONTACT POINTS WITH TREE TRUNK AND REACHING TO TURNBUCKLE. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE.
 - c. SUPPORT TREES WITH GUY CABLE OR MULTIPLE STRANDS OF TIE WIRE, CONNECTED TO THE BRASS GROMMETS OF TREE-TIE WEBBING AT CONTACT POINTS WITH TREE TRUNK AND REACHING TO TURNBUCKLE. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE.
 - d. ATTACH FLAGS TO EACH GUY WIRE, 30 INCHES ABOVE FINISH GRADE.

PLACING SOIL IN PLANTERS

PLACE A LAYER OF DRAINAGE GRAVEL AT LEAST 4 INCHES THICK IN BOTTOM OF PLANTER. COVER BOTTOM WITH FILTER FABRIC AND WRAP FILTER FABRIC 6 INCHES UP ON ALL SIDES. DUCT TAPE ALONG THE ENTIRE TOP EDGE OF THE FILTER FABRIC, TO SECURE THE FILTER FABRIC AGAINST THE SIDES DURING THE SOIL-FILLING PROCESS.

FILL PLANTER WITH PLANTING SOIL. PLACE SOIL IN LIGHTLY COMPACTED LAYERS TO AN ELEVATION OF 1-1/2 INCHES BELOW TOP OF PLANTER, ALLOWING NATURAL SETTLEMENT.

GROUND COVER AND PLANT PLANTING

- 1. SET OUT AND SPACE GROUND COVER AND PLANTS OTHER THAN TREES, SHRUBS, AND VINES AS **INDICATED ON DRAWINGS** IN EVEN ROWS WITH TRIANGULAR SPACING.
- 2. USE PLANTING SOIL PER PLANTING SOIL SPECIFICATION FOR BACKFILL.
- 3. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS. 4. FOR ROOTED CUTTING PLANTS SUPPLIED IN FLATS, PLANT EACH IN A MANNER THAT MINIMALLY DISTURBS THE ROOT SYSTEM BUT TO A DEPTH NOT LESS THAN TWO NODES.
- 5. WORK SOIL AROUND ROOTS TO ELIMINATE AIR POCKETS AND LEAVE A SLIGHT SAUCER INDENTATION AROUND PLANTS TO HOLD WATER.
- 6. WATER THOROUGHLY AFTER PLANTING, TAKING CARE NOT TO COVER PLANT CROWNS WITH WET
- SOIL. 7. PROTECT PLANTS FROM HOT SUN AND WIND; REMOVE PROTECTION IF PLANTS SHOW EVIDENCE OF RECOVERY FROM TRANSPLANTING SHOCK.

PLANTING AREA MULCHING

INSTALL WEED-CONTROL BARRIERS BEFORE MULCHING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLETELY COVER AREA TO BE MULCHED, OVERLAPPING EDGES A MINIMUM OF **12 INCHES** AND SECURE SEAMS WITH GALVANIZED PINS.

- MULCH BACKFILLED SURFACES OF PLANTING AREAS AND OTHER AREAS INDICATED.
- 1. TREES IN TURF AREAS: APPLY [ORGANIC] [AGGREGATE] MULCH RING OF 2-INCH AVERAGE THICKNESS, WITH 18-INCH RADIUS AROUND TRUNKS OR STEMS. DO NOT PLACE MULCH WITHIN 3 **INCHES** OF TRUNKS OR STEMS.
- 2. ORGANIC MULCH IN PLANTING AREAS: APPLY 2-INCH AVERAGE THICKNESS OF ORGANIC MULCH OVER WHOLE SURFACE OF PLANTING AREA. AND FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS.

EDGING INSTALLATION

SHOVEL-CUT EDGING: SEPARATE MULCHED AREAS FROM TURF AREAS, CURBS, AND PAVING WITH A 45-DEGREE, 4- TO 6-INCH-DEEP, SHOVEL-CUT EDGE.

PLANT MAINTENANCE

- 1. MAINTAIN PLANTINGS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, MULCHING, RESTORING PLANTING SAUCERS, ADJUSTING AND REPAIRING TREE-STABILIZATION DEVICES, RESETTING TO PROPER GRADES OR VERTICAL POSITION, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
- 2. FILL IN, AS NECESSARY, SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
- UNDERGROUNDAFFEITHESTAREACTIONED TO KEEP PLANT MATERIALS, PLANTED AREAS, AND SOILS COMPILATION OF REALLABLE REGORDS/NACHANDA TRAVIANDOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT SURFACE INDIGARIONS OF BUDDER OF BUDDER OF PESTICIDES AND REDUCE HAZARDS. MAY NOT BE INCLUSE INCLUSE AND THE CALLONE AND THE CAL CONTROLS SUCH AS HOSING OFF FOLIAGE, MECHANICAL EXISTENCE OR MODINE MEDILES OF HIVE STRAPHY AND THE OLOGICAL CONTROL AGENTS. CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY

PROTECTIONS DESCRIPTION AND PERIOD

OF EXCAVATION ASTRUCTION ACTIVITY OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS

ACCORDING TO AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.

- 2. PRE-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY TO TREE, SHRUB, AND
- NOT APPLY TO SEEDED AREAS.

RECOMMENDATIONS.

REPAIR AND REPLACEMENT

NORMAL GROWTH PATTERN.

CLEANING AND PROTECTION

MAINTENANCE SERVICE

BELOW:

PLANTING AREAS, AND PROJECT SITE.

APPROVED.

GROUND-COVER AREAS ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO

3. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN

GENERAL: REPAIR OR REPLACE EXISTING OR NEW TREES AND OTHER PLANTS THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER APPROVED BY ARCHITECT.

1. SUBMIT DETAILS OF PROPOSED PRUNING AND REPAIRS. 2. PERFORM REPAIRS OF DAMAGED TRUNKS, BRANCHES, AND ROOTS WITHIN 24 HOURS, IF

3. REPLACE TREES AND OTHER PLANTS THAT CANNOT BE REPAIRED AND RESTORED TO FULL-GROWTH STATUS, AS DETERMINED BY ARCHITECT.

REMOVE AND REPLACE TREES THAT ARE MORE THAN **25** PERCENT DEAD OR IN AN UNHEALTHY CONDITION **BEFORE THE END OF THE CORRECTIONS PERIOD** OR ARE DAMAGED DURING CONSTRUCTION OPERATIONS THAT ARCHITECT DETERMINES ARE INCAPABLE OF RESTORING TO

1. PROVIDE NEW PLANTS OF SAME SIZE AND SPECIES AS THOSE BEING REPLACED.

1. DURING PLANTING, KEEP ADJACENT PAVING AND CONSTRUCTION CLEAN AND WORK AREA IN AN ORDERLY CONDITION. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.

2. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY. 3. PROTECT PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND OPERATIONS OF OTHER

CONTRACTORS AND TRADES. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS, TREAT, REPAIR, OR REPLACE DAMAGED PLANTINGS.

4. AFTER INSTALLATION AND BEFORE PROJECT COMPLETION, REMOVE NURSERY TAGS, NURSERY STAKES, TIE TAPE, LABELS, WIRE, BURLAP, AND OTHER DEBRIS FROM PLANT MATERIAL,

5. AT TIME OF SUBSTANTIAL COMPLETION, VERIFY THAT TREE-WATERING DEVICES ARE IN GOOD WORKING ORDER AND LEAVE THEM IN PLACE. REPLACE IMPROPERLY FUNCTIONING DEVICES.

MAINTENANCE SERVICE FOR PLANTS: PROVIDE MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "PLANT MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTS ARE INSTALLED AND CONTINUE UNTIL PLANTINGS ARE ACCEPTABLY HEALTHY AND WELL ESTABLISHED, BUT FOR NOT LESS THAN MAINTENANCE PERIOD

1. MAINTENANCE PERIOD: 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION.

		AGGERS ROCUP MWW.kleingers.com Most Chester, OH 45069 513.779.7851
	GRAETER'S ICE CREAM 8167 MONTGOMERY ROAD CINCINNATI, OH - 45236	SYCAMORE TOWNSHIP 8540 KENWOOD ROAD SYCAMORE TOWNSHIP, OH - 45236
	GRAET CR 8167 MONTO	RIPTION ER'S ICE EAM GOMERY ROAD F1, OH - 45236
	<i>PROJECT NO:</i> <i>DATE:</i> <i>SCALE:</i>	180817.000 05-20-2019
	SPECIFI	SCAPE CATIONS
OHIO Utilities Protection 811 or 1-800-362-2764 Call Before You Dig	SHEET NO.	03

DEFINITIONS

Ш

- FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL.
- 2. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING, DESTROYING, REPELLING, OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDES SUBSTANCES OR
- MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT. 3. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS), FUNGI, BACTERIA, AND VIRUSES.
- 4. PLANTING SOIL: EXISTING, ON-SITE SOIL; IMPORTED SOIL; OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL MIXTURE BEST FOR PLANT GROWTH. SEE SECTION 329113 "SOIL PREPARATION." 5. SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS
- COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

PREINSTALLATION MEETINGS: PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

SUBMITTALS

- 1. QUALIFICATION DATA: FOR LANDSCAPE INSTALLER.
- 2. CERTIFICATION OF GRASS SEED: FROM SEED VENDOR FOR EACH GRASS-SEED MONOSTAND OR MIXTURE, STATING THE BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY, AND PERCENTAGE OF PURITY, GERMINATION, AND WEED SEED. INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING.
- 3. CERTIFICATION OF EACH SEED MIXTURE FOR TURFGRASS SOD. INCLUDE IDENTIFICATION OF SOURCE AND NAME AND TELEPHONE NUMBER OF SUPPLIER.
- 4. PRODUCT CERTIFICATES: FOR FERTILIZERS, FROM MANUFACTURER. 5. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
- 6. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF TURF DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN

- SUCCESSFUL TURF ESTABLISHMENT. 1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER THE PROFESSIONAL LANDCARE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- 2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN TURF INSTALLATION.
- 3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
- 4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDCARE NETWORK:
- a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN EXTERIOR.
- b. LANDSCAPE INDUSTRY CERTIFIED LAWNCARE MANAGER. c. LANDSCAPE INDUSTRY CERTIFIED LAWNCARE TECHNICIAN.
- 5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

DELIVERY, STORAGE, AND HANDLING

SEED AND OTHER PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS, AS APPLICABLE.

SOD: HARVEST, DELIVER, STORE, AND HANDLE SOD ACCORDING TO REQUIREMENTS IN "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" AND "SPECIFICATIONS FOR TURFGRASS SOD TRANSPLANTING AND INSTALLATION" SECTIONS IN TPI'S "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." DELIVER SOD WITHIN 24 HOURS OF HARVESTING AND IN TIME FOR PLANTING PROMPTLY. PROTECT SOD FROM BREAKAGE AND DRYING.

BULK MATERIALS:

- 1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
- 2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS; DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
- 3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

FIELD CONDITIONS

Ш

M

Ш

Ш

Ш

NOTE :

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH INITIAL MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

- 1. SPRING PLANTING: MARCH 15 TO JUNE 1.
- 2. FALL PLANTING: AUGUST 15 TO OCTOBER 15.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

SEED

GRASS SEED: FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH AOSA'S "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.

SEED MIX: SEED OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 100 PERCENT PURE SEED, AND COMPLETELY FREE OF NOXIOUS WEEDS AND GRASSES. THE MIXTURE SHALL BE AS FOLLOWS OR AN APPROVED EQUAL: (MIXTURE SHALL RATE IN NTEP'S TOP TEN. CONTRACTOR TO PROVIDE INFORMATION ON GRASS SEED STATING IT MEETS NTEP'S TOP TEN LIST)

- 1. 80-90 PERCENT TURF-TYPE TALL FESCUE, MINIMUM 3 VARIETIES (15 PERCENT MINIMUM FOR ANY VARIETY).
- 2. 5-10 PERCENT PERENNIAL RYEGRASS. 3. 5-10 PERCENT KENTUCKY BLUEGRASS.

FERTILIZERS

- 1. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF QUICK RELEASE NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN. PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.
- 2. SLOW-RELEASE FERTILIZER: GRANULAR FERTILIZER CONSISTING OF A MINIMUM OF 50 PERCENT WATER-INSOLUBLE NITROGEN OR COATED NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN, PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.

MULCHES

1. STRAW MULCH: PROVIDE AIR-DRY, CLEAN, MILDEW- AND SEED-FREE, SALT HAY OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY.

PESTICIDES

GENERAL: PESTICIDE, REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE

RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. 1. PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING UNDERGROUND UTHETIES BRENTHONTHEDNFROMRAGROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL COMPILATION OF DURATE OF THE OF DEPARTMENT OF DURATE OF

SURFACE INDICATIONS DEMONSTRATING FOR CONTROLLING MAY NOT BE INCLUMENTED PORTOS AT OCATION SHARE AND GERMINATED. MAY NUT BE INCLUDENCE OF UNDERGROUND UTILITIES

CANNOT BE VERESED ON FOSTING THE FERENCE IN PROTECTION SERVICE AT 1.800-362-2764 BEFOBE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY BLANKETS: BIODEGRADABLE WOOD EXCELSIOR, STRAW, OR OF EXCAVATION OR CONSTRUCTION ACTIVITY BLANKETS: BIODEGRADABLE WOOD EXCELSIOR, STRAW, OR COCONUT-FIBER MAT ENCLOSED IN A PHOTODEGRADABLE PLASTIC MESH. INCLUDE

- BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.

EXAMINATION

PREPARATION

OVERSPRAY.

- CORRECTED.

PROPERTIES AND WALKWAYS.

1. PREPARE AREA AS SPECIFIED ABOVE

WIND VELOCITY EXCEEDS 5 MPH.

ANGLES TO EACH OTHER.

PLANTING SAUCER.

SUITABLE EQUIPMENT.

TURF RENOVATION

BURY IN SOIL.

FINISH GRADES.

TURF MAINTENANCE

RECOMMENDATIONS.

REGRADING IS REQUIRED.

TURF AREA PREPARATION

SOIL" SPECIFICATION.

SEEDING

MANUFACTURER'S RECOMMENDED STEEL WIRE STAPLES, 6 INCHES LONG.

2. EROSION-CONTROL FIBER MESH: BIODEGRADABLE BURLAP OR SPUN-COIR MESH, A MINIMUM OF 0.92 LB/SQ. YD., WITH 50 TO 65 PERCENT OPEN AREA. INCLUDE MANUFACTURER'S RECOMMENDED STEEL WIRE STAPLES, 6 INCHES LONG.

EXAMINE AREAS TO BE PLANTED FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.

1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS

2. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS. 3. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.

4. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN

5. IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

1. PROTECT STRUCTURES; UTILITIES; SIDEWALKS; PAVEMENTS; AND OTHER FACILITIES, TREES, SHRUBS, AND PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS. 2. PROTECT ADJACENT AND ADJOINING AREAS FROM HYDROSEEDING AND HYDROMULCHING

3. PROTECT GRADE STAKES SET BY OTHERS UNTIL DIRECTED TO REMOVE THEM. 4. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL PER "PLANTING

1. PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL PER "PLANTING SOIL" SPECIFICATION.

2. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISH GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE. MOISTEN PREPARED AREA BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL. BEFORE PLANTING, OBTAIN FIELD

ENGINEER'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR

OTHERWISE DISTURBED AFTER FINISH GRADING.

3. BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

PREPARATION FOR EROSION-CONTROL MATERIALS

2. FOR EROSION-CONTROL BLANKET OR MESH, INSTALL FROM TOP OF SLOPE, WORKING DOWNWARD, AND AS RECOMMENDED BY MATERIAL MANUFACTURER FOR SITE CONDITIONS. FASTEN AS RECOMMENDED BY MATERIAL MANUFACTURER

3. MOISTEN PREPARED AREA BEFORE PLANTING IF SURFACE IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

1. SOW SEED WITH SPREADER OR SEEDING MACHINE. DO NOT BROADCAST OR DROP SEED WHEN

a. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT

b. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED. c. DO NOT SEED AGAINST EXISTING TREES. LIMIT EXTENT OF SEED TO OUTSIDE EDGE OF

2. SOW SEED AT A TOTAL RATE OF 6 TO 8 LB/1000 SQ. FT.. 3. RAKE SEED LIGHTLY INTO TOP 1/8 INCH OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.

4. PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:4 WITH EROSION-CONTROL BLANKETS AND 1:6 WITH EROSION-CONTROL FIBER MESH INSTALLED AND STAPLED ACCORDING TO

MANUFACTURER'S WRITTEN INSTRUCTIONS. 5. PROTECT SEEDED AREAS WITH SLOPES NOT EXCEEDING 1:6 BY SPREADING STRAW MULCH. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER

a. ANCHOR STRAW MULCH BY CRIMPING INTO SOIL WITH SUITABLE MECHANICAL EQUIPMENT.

6. OVERSEED TURF AREA EIGHT (8) WEEKS AFTER INITIAL SEEDING OPERATION AT A RATE OF 5 LBS/1000 SQ. FT., IF INITIAL SEEDING HAS NOT PROVIDED A MINIMUM OF 90% COVERAGE OVER ANY 10 SQ. FT., OR IF BARE AREAS GREATER THE 3 BY 3 INCHES ARE PRESENT.

HYDROSEEDING: MIX SPECIFIED SEED, COMMERCIAL FERTILIZER, AND FIBER MULCH IN WATER,

USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE MIXING UNTIL UNIFORMLY BLENDED INTO HOMOGENEOUS SLURRY SUITABLE FOR HYDRAULIC APPLICATION. 1. MIX SLURRY WITH NONASPHALTIC TACKIFIER.

2. SPRAY-APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED IN A TWO-STEP PROCESS. APPLY FIRST SLURRY COAT AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 500-LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE. APPLY SLURRY COVER COAT OF FIBER MULCH (HYDROMULCHING) AT A RATE OF 1000 LB/ACRE.

1. RENOVATE EXISTING TURF WHERE INDICATED.

2. RENOVATE TURF DAMAGED BY CONTRACTOR'S OPERATIONS, SUCH AS STORAGE OF MATERIALS OR EQUIPMENT AND MOVEMENT OF VEHICLES.

a. REESTABLISH TURF WHERE SETTLEMENT OR WASHOUTS OCCUR OR WHERE MINOR b. INSTALL NEW PLANTING SOIL AS REQUIRED.

3. REMOVE SOD AND VEGETATION FROM DISEASED OR UNSATISFACTORY TURF AREAS; DO NOT

4. REMOVE TOPSOIL CONTAINING FOREIGN MATERIALS, SUCH AS OIL DRIPPINGS, FUEL SPILLS, STONES, GRAVEL, AND OTHER CONSTRUCTION MATERIALS RESULTING FROM CONTRACTOR'S OPERATIONS, AND REPLACE WITH NEW PLANTING SOIL.

5. MOW, DETHATCH, CORE AERATE, AND RAKE EXISTING TURF. 6. REMOVE WEEDS BEFORE SEEDING. WHERE WEEDS ARE EXTENSIVE, APPLY SELECTIVE

HERBICIDES AS REQUIRED. DO NOT USE PRE-EMERGENCE HERBICIDES. 7. REMOVE WASTE AND FOREIGN MATERIALS, INCLUDING WEEDS, SOIL CORES, GRASS, VEGETATION, AND TURF, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

8. TILL STRIPPED, BARE, AND COMPACTED AREAS THOROUGHLY TO A SOIL DEPTH OF 6 INCHES. 9. APPLY INITIAL FERTILIZER REQUIRED FOR ESTABLISHING NEW TURF AND MIX THOROUGHLY INTO

TOP 4 INCHES OF EXISTING SOIL. INSTALL NEW PLANTING SOIL TO FILL LOW SPOTS AND MEET

a. INITIAL FERTILIZER: COMMERCIAL FERTILIZER APPLIED ACCORDING TO MANUFACTURER'S

10. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW TURF. 11. WATER NEWLY PLANTED AREAS AND KEEP MOIST UNTIL NEW TURF IS ESTABLISHED.

GENERAL: MAINTAIN AND ESTABLISH TURF BY WATERING. FERTILIZING. WEEDING. MOWING. TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS

THOSE USED IN THE ORIGINAL INSTALLATION. 1. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND TURF DAMAGED OR LOST IN AREAS OF SUBSIDENCE.

- 2. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
- 3. APPLY TREATMENTS AS REQUIRED TO KEEP TURF AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.

WATERING: INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND TURF-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP TURF UNIFORMLY MOIST TO A DEPTH OF 4 INCHES.

- 1. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
- 2. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET. SCHEDULE INITIAL AND SUBSEQUENT MOWINGS TO MAINTAIN THE FOLLOWING GRASS HEIGHT:

1. MOW TURF TO A HEIGHT OF 2 TO 3 INCHES.

TURF POST-FERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY. 1. USE FERTILIZER THAT PROVIDES ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.

2. SECOND APPLICATION FERTILIZER: APPLY SIX (6) WEEKS AFTER SEEDING OPERATIONS. PROVIDE A HIGH NITROGEN SLOW RELEASE FERTILIZER WITH AN ANALYSIS OF 30-3-10 OR SIMILAR. APPLY AT A RATE TO PROVIDE ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.

SATISFACTORY TURF

TURF INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA AS DETERMINED BY ARCHITECT: 1. SATISFACTORY SEEDED TURF: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.

USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.

PESTICIDE APPLICATION

- 1. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS ACCORDING TO REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
- 2. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

CLEANUP AND PROTECTION

- 1. PROMPTLY REMOVE SOIL AND DEBRIS CREATED BY TURF WORK FROM PAVED AREAS. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.
- 2. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY. 3. ERECT TEMPORARY FENCING OR BARRICADES AND WARNING SIGNS AS REQUIRED TO PROTECT
- NEWLY PLANTED AREAS FROM TRAFFIC. MAINTAIN FENCING AND BARRICADES THROUGHOUT INITIAL MAINTENANCE PERIOD AND REMOVE AFTER PLANTINGS ARE ESTABLISHED.
- 4. REMOVE NONDEGRADABLE EROSION-CONTROL MEASURES AFTER GRASS ESTABLISHMENT PERIOD.

MAINTENANCE SERVICE

TURF MAINTENANCE SERVICE: PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "TURF MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE TURF IS ESTABLISHED, BUT FOR NOT LESS THAN THE FOLLOWING PERIODS:

1. SEEDED TURF: 90 DAYS FROM DATE OF [PLANTING COMPLETION] [SUBSTANTIAL COMPLETION]. a. WHEN INITIAL MAINTENANCE PERIOD HAS NOT ELAPSED BEFORE END OF PLANTING SEASON. OR IF TURF IS NOT FULLY ESTABLISHED, CONTINUE MAINTENANCE DURING NEXT PLANTING SEASON.

	THE KLEENG CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE	GERSS Www.kleingers.com 6305 Centre Park Dr. West Chester, OH 45069 513.779.7851
	GRAETER'S ICE CREAM 8167 MONTGOMERY ROAD CINCINNATI, OH - 45236	SYCAMORE TOWNSHIP 8540 KENWOOD ROAD SYCAMORE TOWNSHIP, OH - 45236
	NO. DATE DESCRIF	
	CRE 8167 MONTGO CINCINNATI PROJECT NO: DATE: SCALE: SHEET NAME: SHEET NAME:	АМ DMERY ROAD , OH - 45236 180817.000 05-20-2019 ВСАРЕ
OHIO Utilities Protection 811 or 1-800-362-2764 Call Before You Dig	SHEET NO.	04



KLEINGERS GROUP CIVIL ENGINEERING | www.kleingers.com SURVEYING LANDSCAPE

ARCHITECTURE

6305 Centre Park Dr. West Chester, OH 45069 513.779.7851

RETAIL/BUSINESS I			
	REQUIRED	PROPOSED	
INIMUM YARD QUIREMENTS (TABLE 5-5)	FRONT YARD : 30' SIDE YARDS : 10' REAR YARD : 20'	PROVIDED	
/IUM IMPERVIOUS IRFACE RATIO (TABLE 5-5)	MAXIMUM IMPERVIOUS SURFACE RATIO : .50	32,621.5 SF PROPERTY 5,634.5 SF PERVIOUS SURFACE 26,987 SF IMPERVIOUS SURFACE .81 IMPERVIOUS	
TERS AND TRASH H	ANDLING AREAS FOR COMMERCIAL		
SCREEN (10-5.2)	ANY SUCH ACCESSORY USE OR STRUCTURE SHALL BE SCREENED ON 3 SIDES BY A WALL FROM THE VIEW FROM PUBLIC STREETS AND ANY ABUTTING PROPERTIES.	REFER TO ARCHITECT'S DRAWINGS FOR SCREENING	CREAM b INSHIP 45236
CAPING FOR VEHICL	JLAR USE AREAS (CHAPTER 12-6)		
OR LANDSCAPING STANDARDS IAPTER 12-6.3)	WHEN A SIDEWALK IS ABUTTING OR PARALLEL TO A STOREFRONT, A 3' LANDSCAPING STRIP BETWEEN THE SIDEWALK AND VEHICULAR USE AREA IS REQUIRED FOR AT LEAST 50% OF THE ENTIRE BUILDING FRONTAGE. 90 LF BUILDING FRONTAGE = 45 LF LANDSCAPING	46 LF LANDSCAPE BED WITH 14 SHRUBS	AETER'S ICE 8167 MONTGOMERY R CINCINNATI, OH - 452 CINCINNATI, OH - 452 CINCINNATI, OH - 452 SAMORE TOWNSHIP, OH SYCAMORE TOWNSHIP, OH
	SHRUBS AND OTHER GROUNDCOVER MUST BE PLANTED AT A RATIO OF NOT LESS THAN 30 PER 100 FEET OF BUFFER. 45 LF BUFFER = 14 SHRUBS		GRAI SYC/
ERMINATION OF RIOR LANDSCAPE QUIREMENTS HAPTER 12-6.4)	22 SQ. FT. LANDSCAPING PER PARKING SPACE 26 SPACES = 572 SQ. FT. LANDSCAPING REQUIRED 2 TREES PER 10 PARKING SPACES AND 3 SHRUBS PER TREE. 26 PARKING SPACES = 6 TREES AND 18 SHRUBS	721 SQ. FT. LANDSCAPING PROVIDED 6 TREES AND 22 SHRUBS PROVIDED	SEAL:
ARY BUFFER (CHAP	TER 14-7)		NO. DATE DESCRIPTION
IDARY BUFFER A FIGURE 14A)	30' BUFFER WITH 5 TREES AND 15 SHRUBS PER 100 LINEAR FEET 271 FT. BUFFER = 14 TREES AND 41 SHRUBS	BUFFER LANDSCAPING TO BE DEDICATED TO SYCAMORE TOWNSHIP	
SCAPE BUFFER (CH	HAPTER 14-8)		
IL STREETSCAPE BUFFERS FIGURE 14C)	10' BUFFER WITH 1.5 TREES AND 20 SHRUBS PER 100 LINEAR FEET 51 LF BUFFER = 1 TREE AND 10 SHRUBS	1 TREES AND 10 SHRUBS PROVIDED	
<u>NOTES</u> R TO SHEET L101 FOR P NOTES	LANTING SCHEDULE AND DETAILS.		
CONTRACTOR IS RESPO XISTING UTILITIES. HRUB MASSES TO BE IN O LIMITS SHOWN AND A , EDGED APPEARANCE.	ONSIBLE FOR LOCATING AND PROTECTING CORPORATED BY A CONTINUOUS MULCH S SPECIFIED. MULCH BEDS TO HAVE A		GRAETER'S ICE CREAM

NEAT, EDGED APPEARANCE. 3. SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE

CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION

SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND

4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FINE GRADED AND

ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM. 6. THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO

ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF THE AMERICAN ASSOCIATION OF NURSERYMEN.





8167 MONTGOMERY ROAD

CINCINNATI, OH - 45236

LANDSCAPE COLOR RENDERING

L105

0 10 20

PROJECT NO:

SHEET NAME:

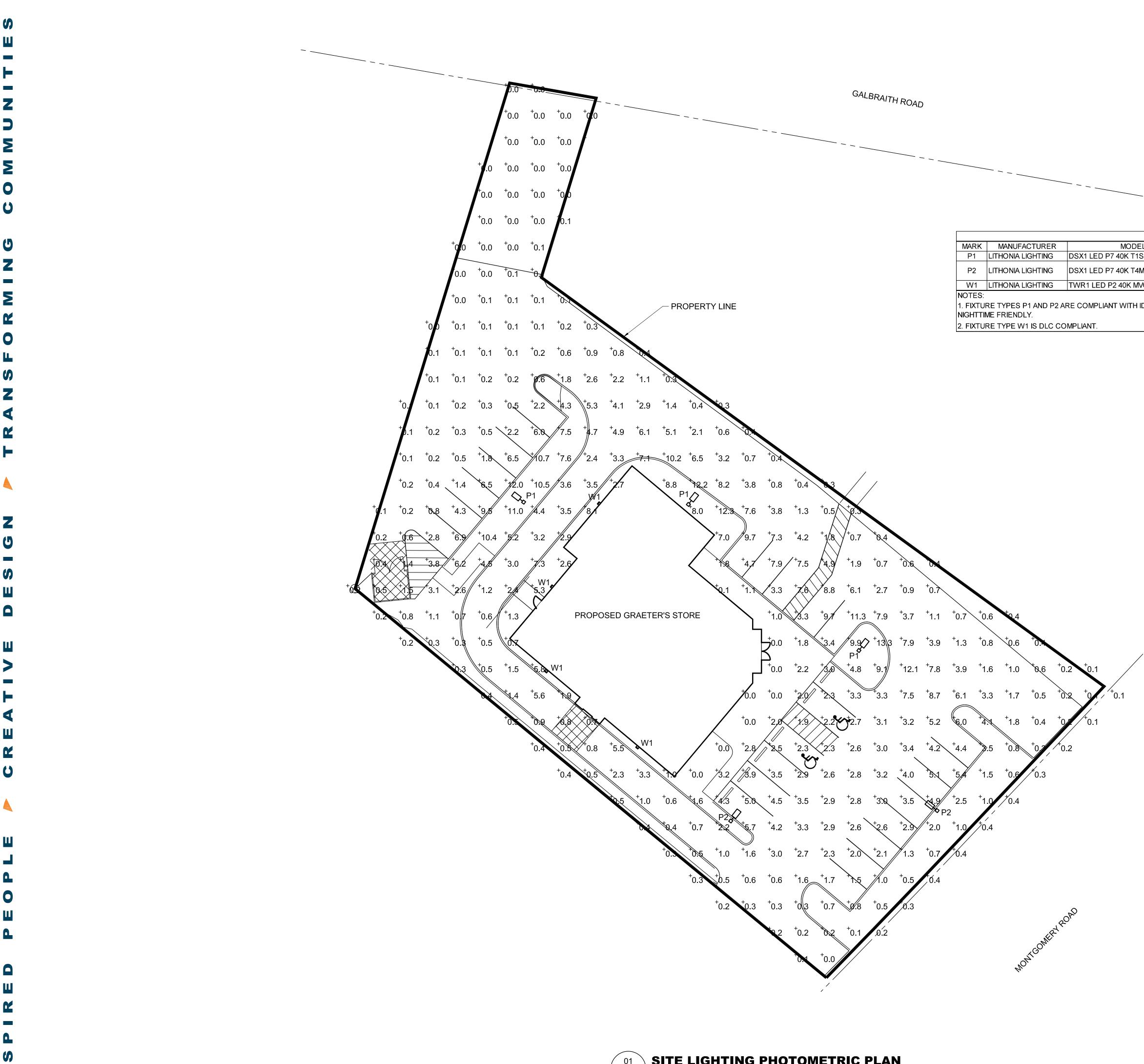
SHEET NO.

DATE:

SCALE:

180817.000

05-20-2019



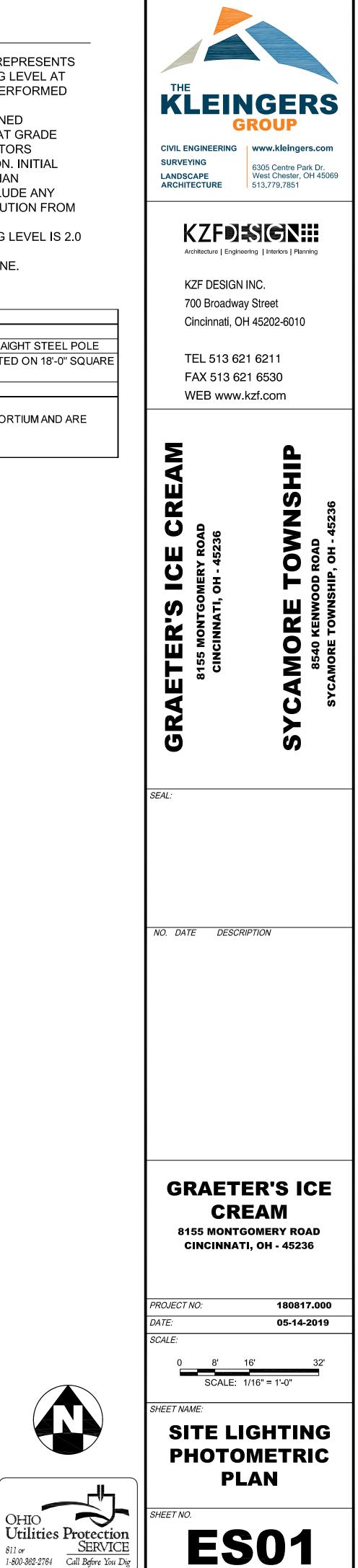


GENERAL NOTES

- A NUMBER ADJACENT TO CROSSHAIR REPRESENTS CALCULATED FOOT-CANDLE LIGHTING LEVEL AT THAT POINT. CALCULATIONS WERE PERFORMED USING VISUAL LIGHTING SOFTWARE.
- ALL INDICATED VALUES ARE MAINTAINED Β. HORIZONTAL FOOT-CANDLE LEVELS AT GRADE WITH APPROPRIATE LIGHT LOSS FACTORS APPLIED FOR DIRT AND DEPRECIATION. INITIAL LIGHTING LEVELS WILL BE HIGHER THAN INDICATED VALUES AND DO NOT INCLUDE ANY OTHER POSSIBLE LIGHTING CONTRIBUTION FROM NEARBY SOURCES.
- THE AVERAGE CALCULATED LIGHTING LEVEL IS 2.0 C. FOOT-CANDLES WITH LESS THAN 0.5 FOOT-CANDLES AT THE PROPERTY LINE.

LUMINAIRE SCHEDULE	
EL NUMBER	DESCRIPTION
S MVOLT SPA DBLXD	LIGHT FIXTURE MOUNTED ON 18'-0" SQUARE STRAIGHT STEEL POLE
MIMVOLESPADBLXDHS	LIGHT FIXTURE WITH HOUSE-SIDE SHIELD MOUNTED ON 18'-0" SQUARE
	STRAIGHT STEEL POLE
VOLT DDBTXD	WALL PACK MOUNTED AT 8'-0" AFF

1. FIXTURE TYPES P1 AND P2 ARE COMPLIANT WITH IDA (INTERNATIONAL DARK-SKY ASSOCIATION), DLC (DESIGN LIGHTS CONSORTIUM AND ARE

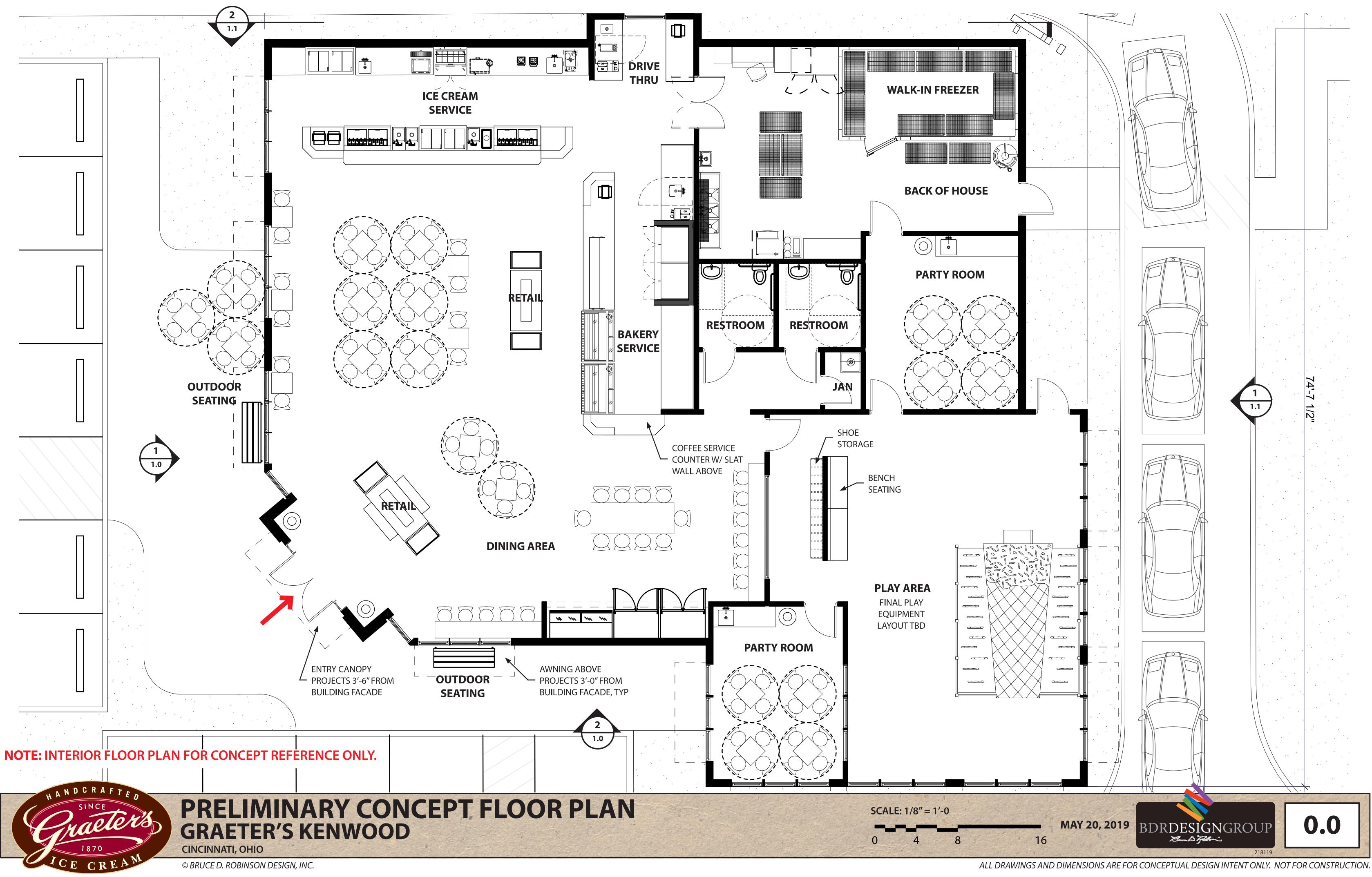


<u>NOTE</u> : UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD 1-800-362-2764 Call Before You Dig OF EXCAVATION OR CONSTRUCTION ACTIVITY.

OHIO

811 or

SERVICE







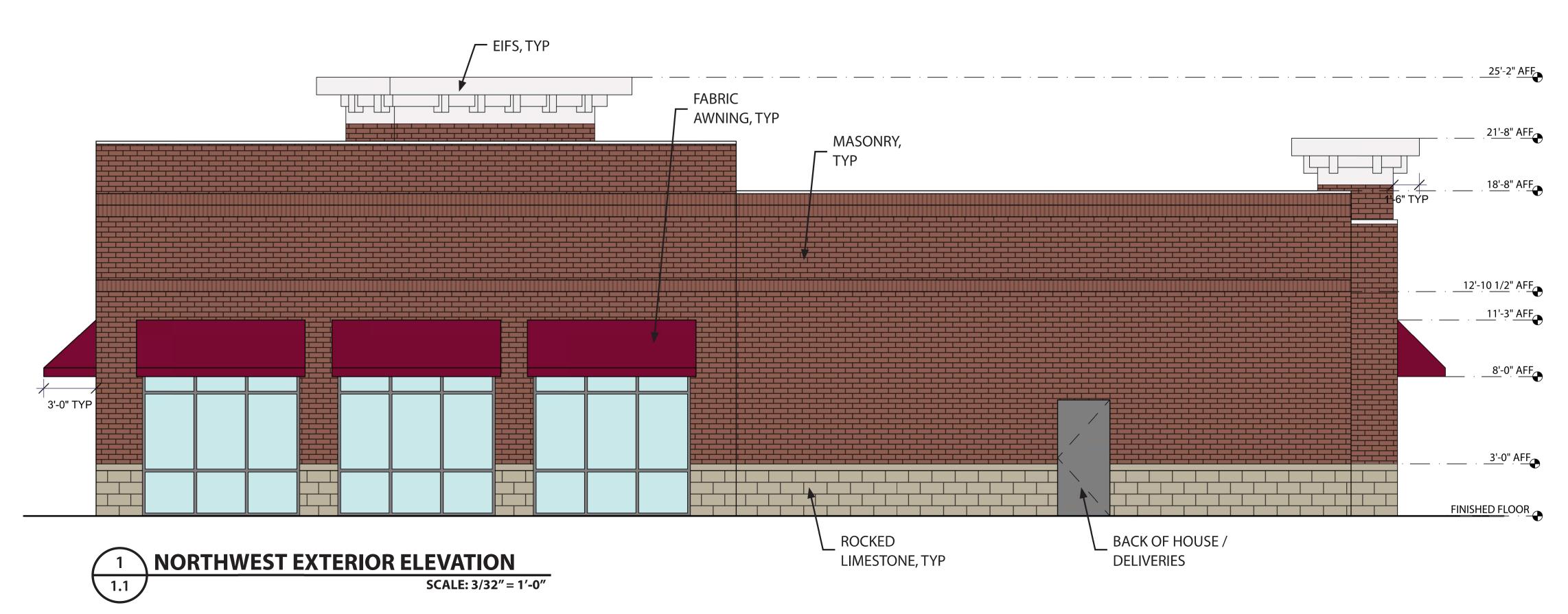
© BRUCE D. ROBINSON DESIGN, INC.

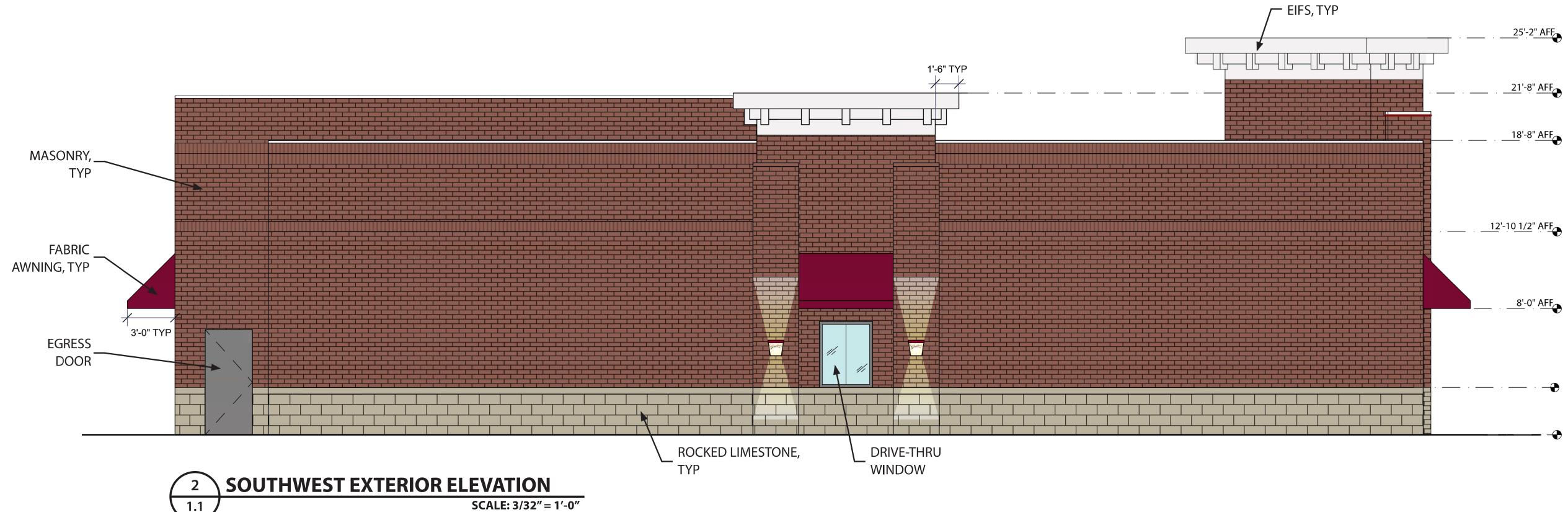
ALL DRAWINGS AND DIMENSIONS ARE FOR CONCEPTUAL DESIGN INTENT ONLY. NOT FOR CONSTRUCTION.

MAY 20, 2019 BDRDESIGNGROUP

1.0

218119

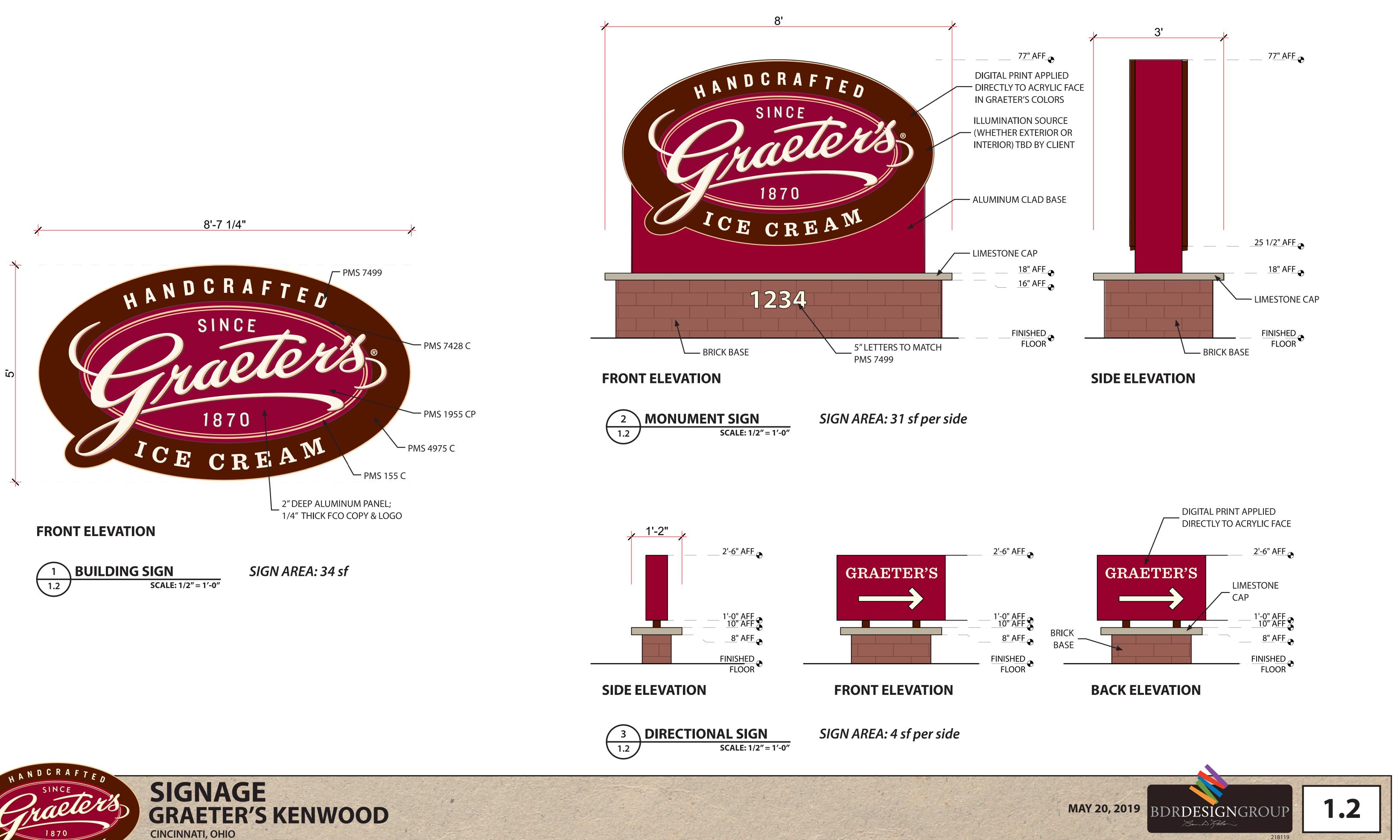








NOTE: ALL MECHANICAL UNITS TO BE HIDDEN BY SCREEN AS REQUIRED

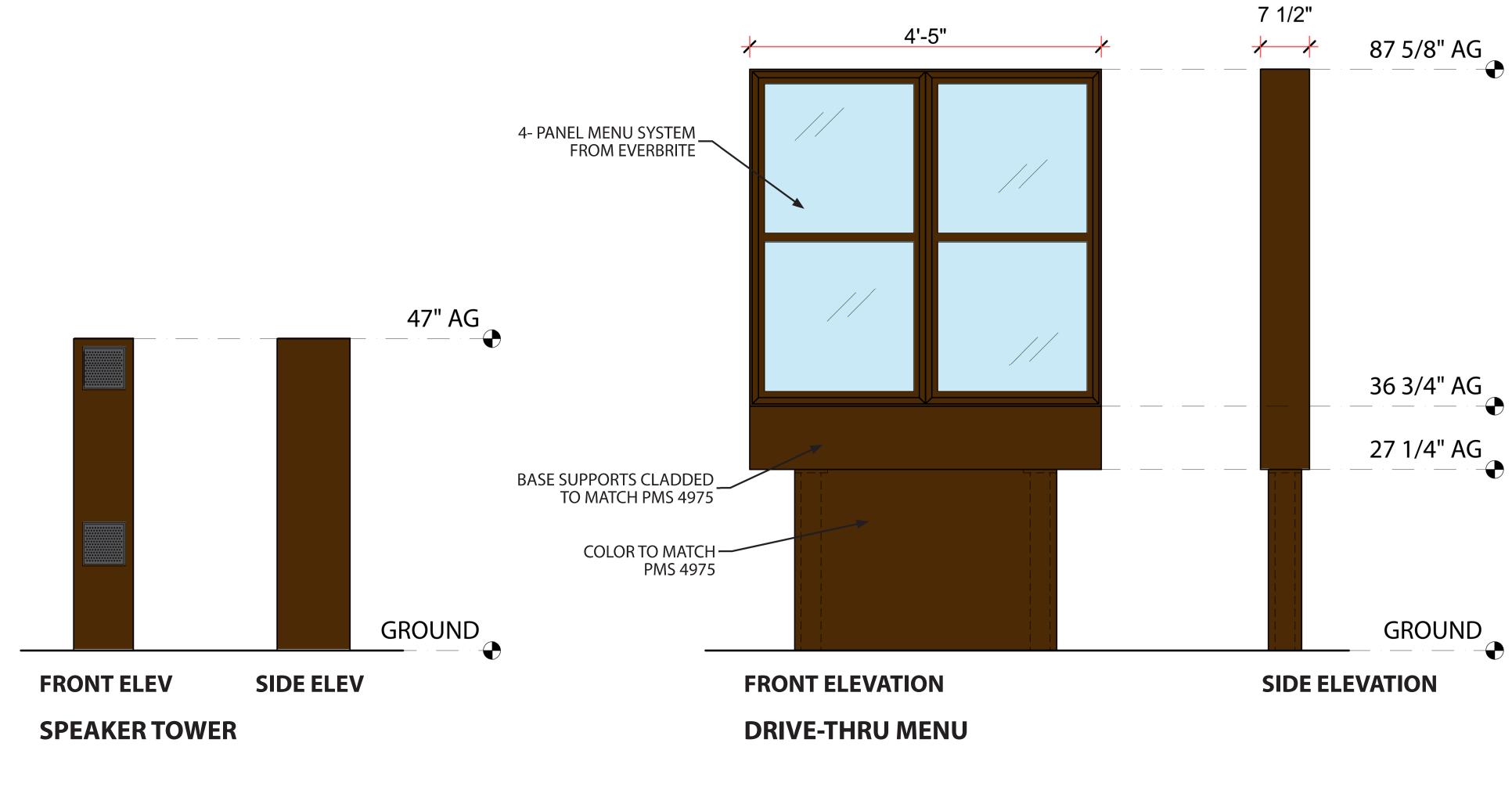






ALL DRAWINGS AND DIMENSIONS ARE FOR CONCEPTUAL DESIGN INTENT ONLY. NOT FOR CONSTRUCTION.



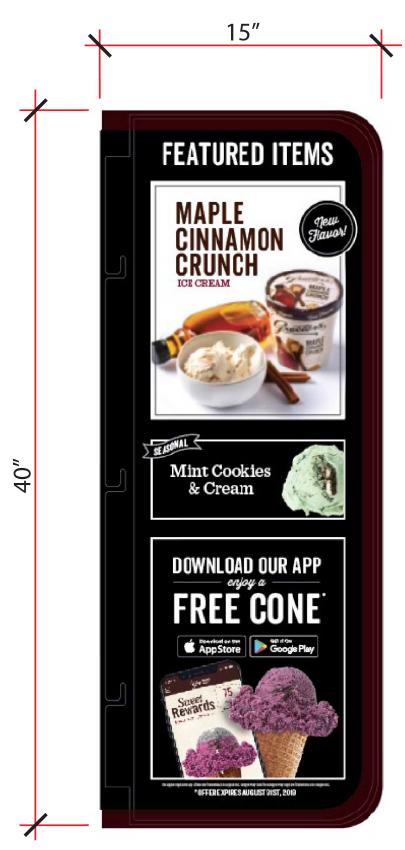


DRIVE-THRU CABINET DETAILS

SCALE: 1/2" = 1'-0"

1

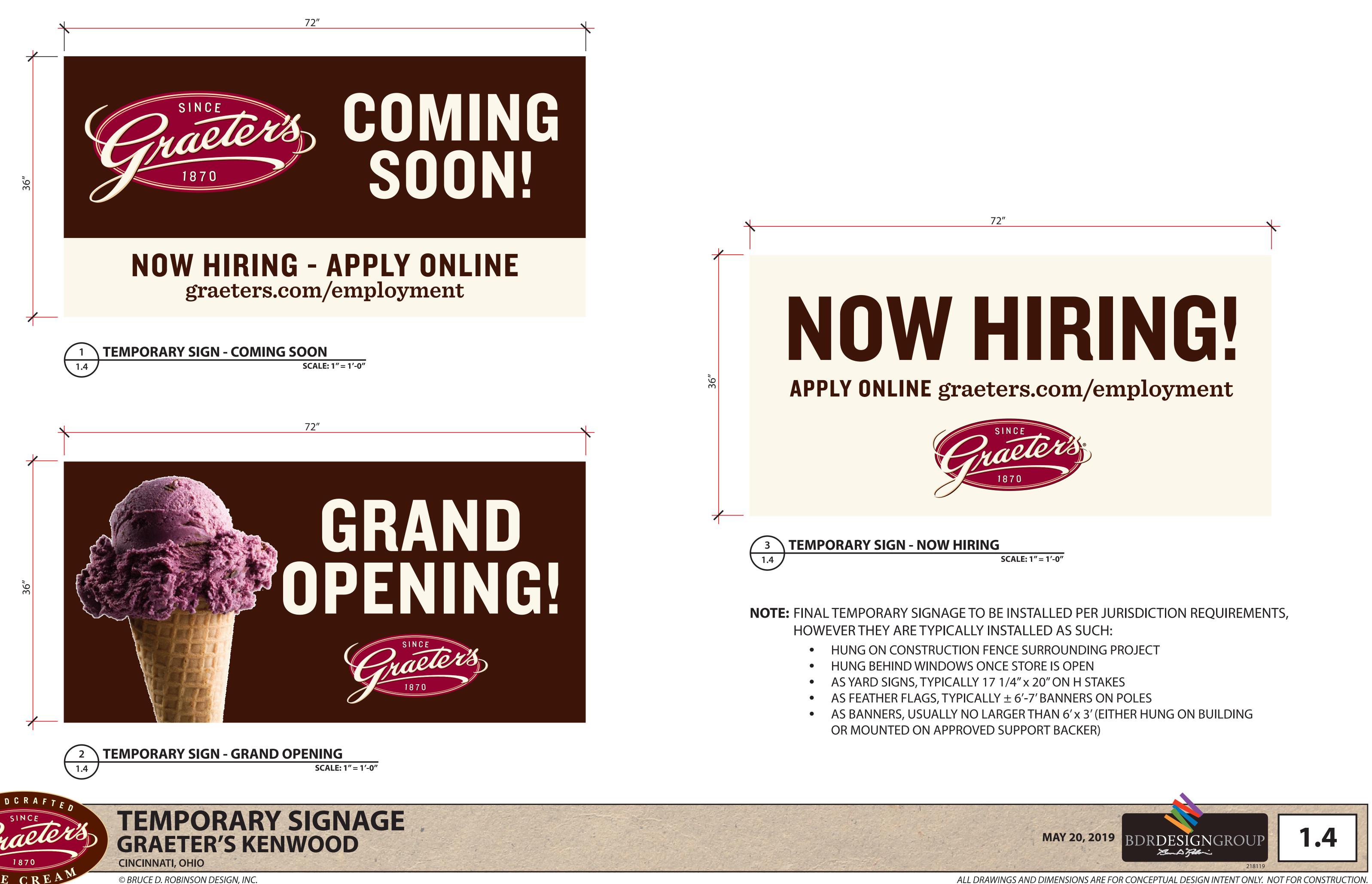
1.3



FRONT ELEVATION

NOTE: EXTENDER ATTACHED TO THE SIDE OF DRIVE-THRU CABINET. GRAPHICS TYPICALLY CHANGED OUT MONTHLY.









Ō

STONE CAP, TYP –

BRICK MASONRY, TYP —

WOOD PLANK ACCESS GATE

DUMPSTER ENCLOSURE GRAETER'S KENWOOD CINCINNATI, OHIO

DUMPSTER ENCLOSURE PLAN

12'-6"

DUMPSTER

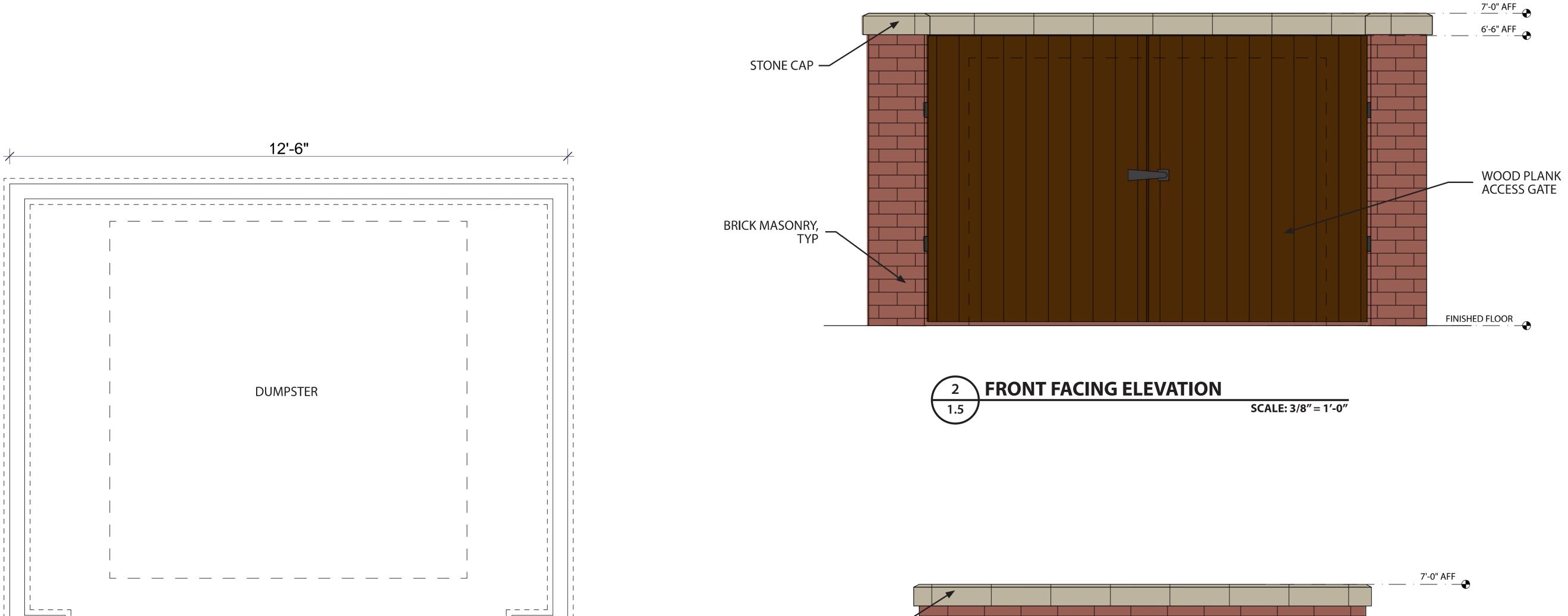
_ _ _ _ _ _ J

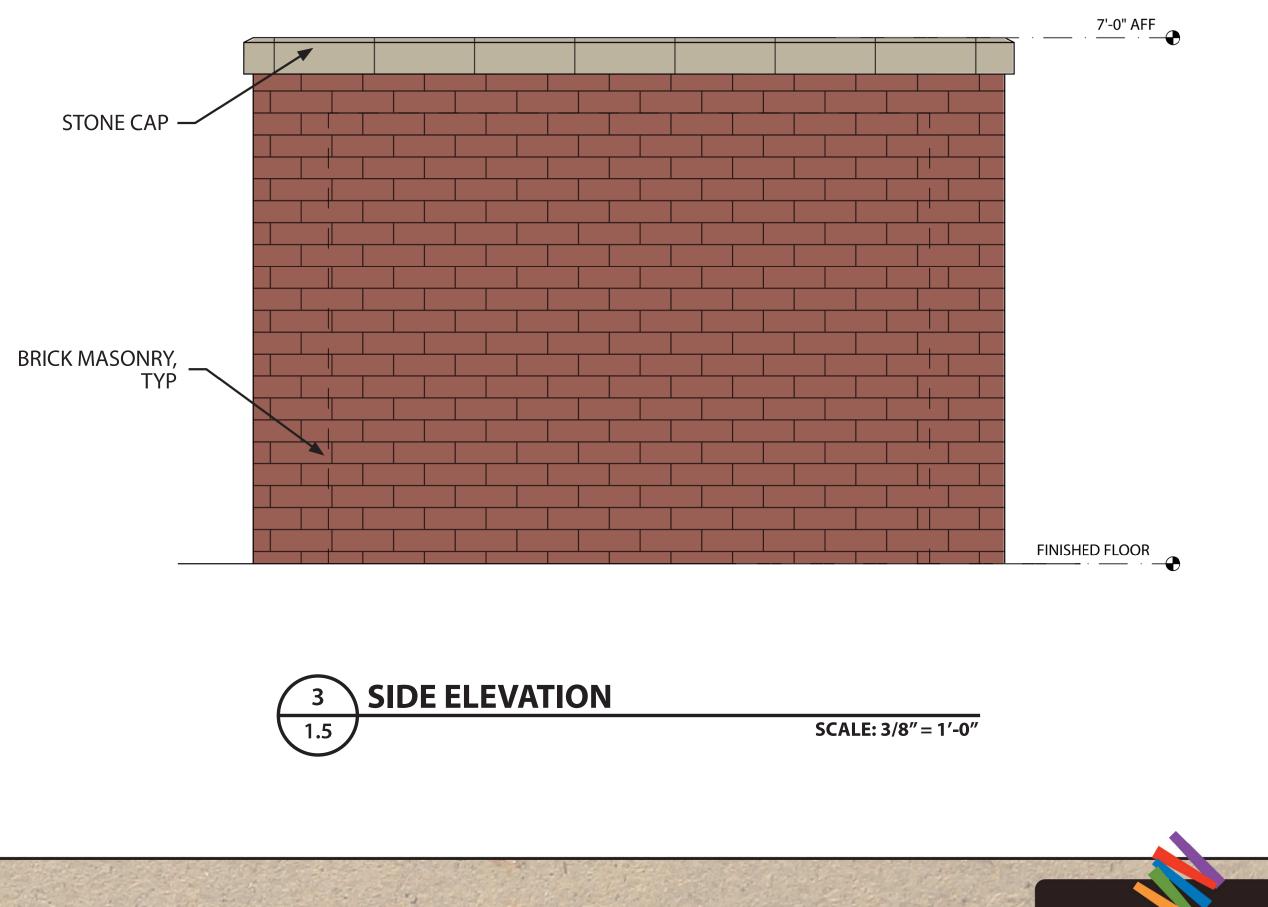
SCALE: 3/8" = 1'-0"

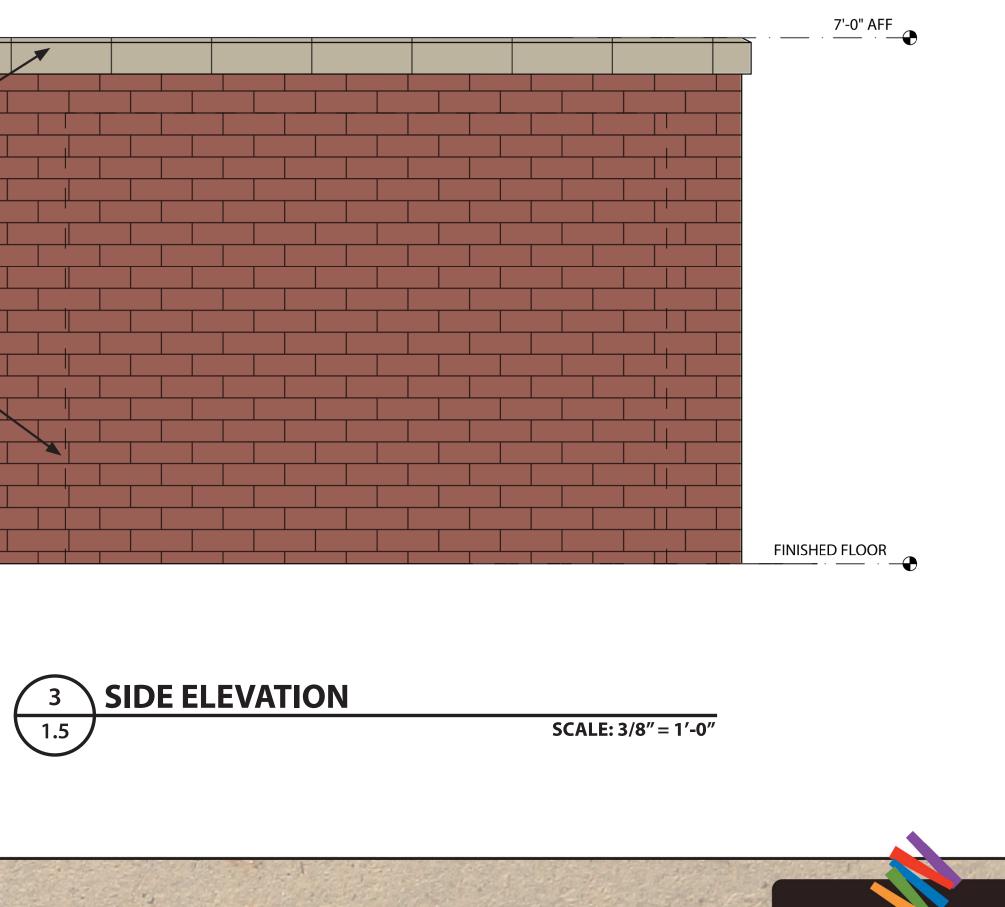
© BRUCE D. ROBINSON DESIGN, INC.

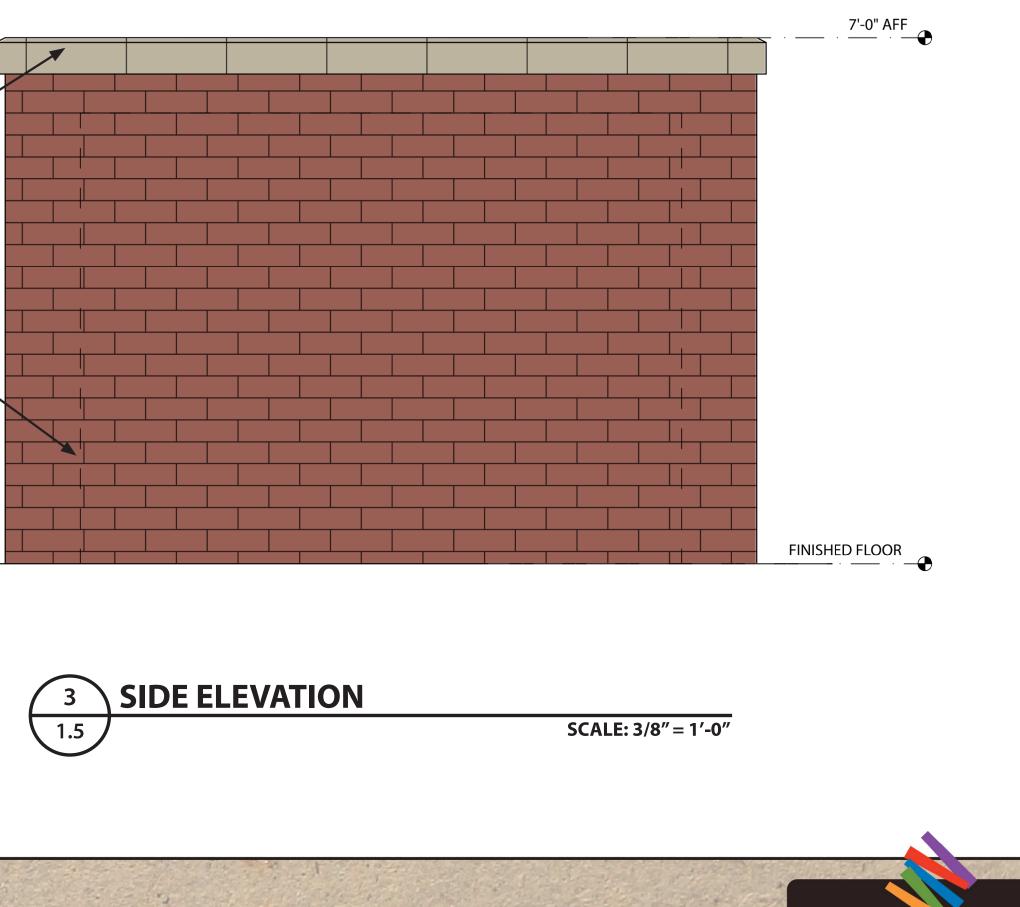
1

1.5











ALL DRAWINGS AND DIMENSIONS ARE FOR CONCEPTUAL DESIGN INTENT ONLY. NOT FOR CONSTRUCTION.

MAY 20, 2019 BDRDESIGNGROUP

1.5

218119