VICINITY MAP

## CONSTRUCTION PLANS FOR

## **DUNKIN'**

4969 PRINCETON ROAD SECTION 1, TOWN 2, RANGE 3 LIBERTY TOWNSHIP BUTLER COUNTY, OHIO CONTAINING 0.9980 ACRES



KLR 3/22/2021



AERIAL MAP NOT TO SCALE

CONSULTANTS SBE Certified THE SURVEY COMPANY
LAND DEVELOPMENT CONSULTING
COMMUNITY AND ECONOMIC PLANNING

314 FRONT STREET LAWRENCEBURG, IN 47025 (812) 537-2145 FAX(812) 537-4901 (888) 537-2145

LAND

THE ENGINEERING GROUP

PLANS PREPARED BY:

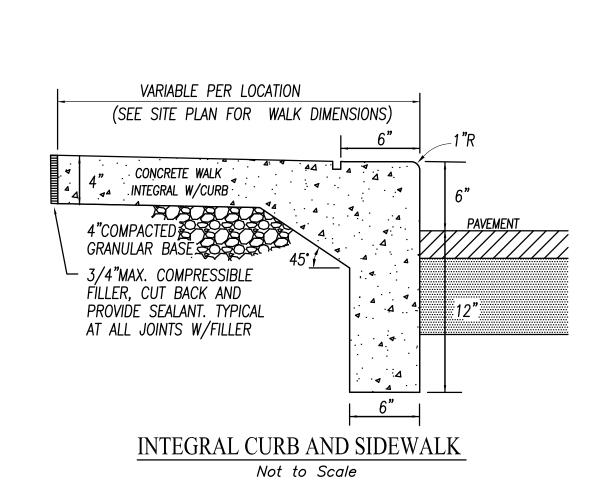
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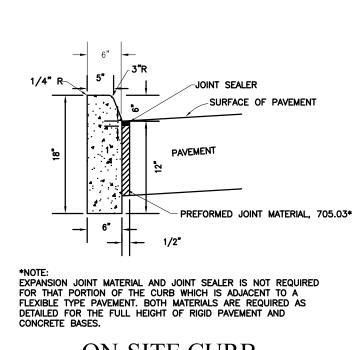
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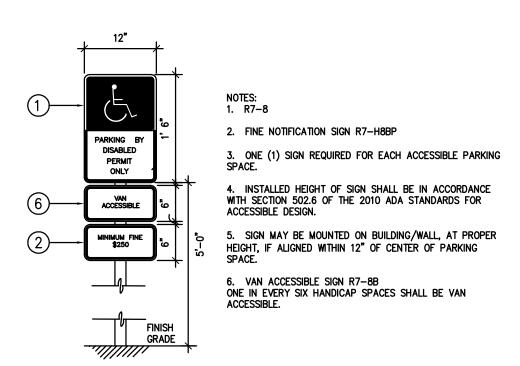
## Kara Burkhardt Meineke

5335 Far Hills Avenue Suite 305 Dayton, OH 45429 Phone: (937)-838-6930 Fax: (815) 417-6755 KBURK999@SBCGLOBAL.NET





ON-SITE CURB ODOT TYPE 6 Not to Scale



ACCESSIBLE PARKING SIGNS Not to Scale

### OWNER / DEVELOPER

GILLIGAN COMPANY LLC CINCINNATI, OHIO 45209 PAT GILLIGAN (513) 321-9065 x14

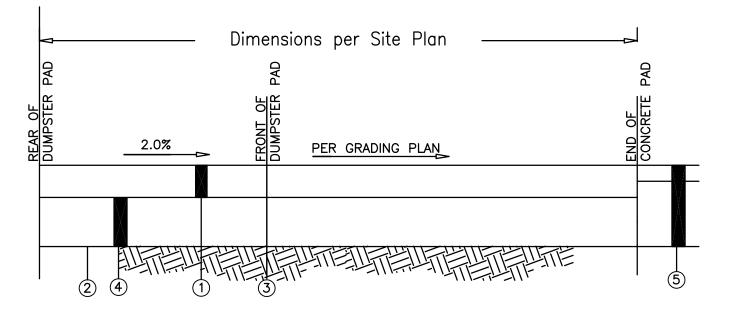
## BENCHMARK INFO:

Datum based on the Ohio State Plane Coordinate

South Zone Grid, NAD '83 (2011), NAVD '88 (Geoid 12b) per GPS Observations using ODOT VRS reference System.

See Demolition Plan C1.0 for specific Location

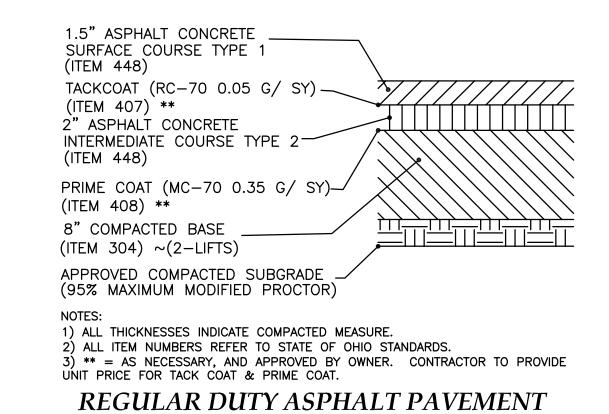
TBM: TP #1 840.09 (5/8" Iron Pin w/traverse cap) N:511444.28 E:1415987.09



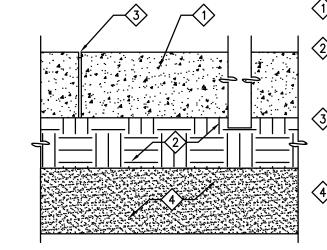
- 1) Item 451 6" 4000 psi concrete pavement w/steel reinforcement, concrete to be air entrained and chemically cured immediately after pour. Provide sawcut grids at 25% slab thickness per ACI standards.
- ② Item 203 Subgrade Compaction
- (3) 1" Preformed Expansion Joint Per Item 705.03 ④ Item 304 4" Aggregate Base (5) Asphalt Pavement

#### **DUMPSTER PAD DETAIL**

Not to Scale



Not to Scale



6" – 4000 PSI, AIR ENTRAINED FIBER REINFORCED CONCRETE. 4" GRAVEL BASE COMPACTED TO A MINIMUM DENSITY OF 95% OF THE

MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) 3 1/4" PREMOLDED ASPHALT EXPANSION JOINT STRIP. SET 1/2" BELOW

PAVEMENT TOP @ 20'-0" O.C. CLEAN FILL OR EXISTING SUBBASE MATERIAL FREE OF ORGANIC MATTER COMPACTED TO A MINIMUM DENSITY OF 95% OF THE MODIFIED PROCTOR

DRY DENSITY.

CONRETE PAVEMENT SECTION Not to Scale

## SHEET INDEX

C-0.0	TITLE & DETAILS SHEET 1 OF 11	4
C-1.0	DEMOLITION PLAN	
C-2.0	SITE PLAN	
C-2.1	LAYOUT PLAN 4 OF 11	
C-3.0	GRADING PLAN 5 OF 11	
C-3.1	GRADING PLAN 6 OF 11	
C-4.0	UTILITY PLAN 7 OF 11	
C-5.0	SOIL EROSION CONTROL 8 OF 11	
C-5.1	SOIL EROSION CONTROL 9 OF 11	<
C-5.2	SOIL EROSION CONTROL 10 OF 11	_
L-1.0	LANDSCAPE PLAN 11 OF 11	

PHOTOMETRIC PLAN.

PLANS PREPARED FOR: **GILLIGAN COMPANY** LLC

3805 Edwards Road Suite 680 Cincinnati, Ohio 45209

PROJECT NAME:

DUNKIN'

4969 Princeton Road Liberty Township Butler County, Ohio

SHEET TITLE:

LC PROJ. NO. 20-0018	BASE FILE NAME
KBM PROJ. NO. 134-20	TAB NAME
DATE	TITLE
01/19/21	DRAWING NO.

**SCALE** 1"=20'

SHEET 1 of 11

## BENCHMARK INFO:

#### TBM:

TP #1 840.09 (5/8" Iron Pin w/traverse cap) N:511444.28 E:1415987.09

### **DEMOLITION NOTES:**

1.) EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THE EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE TO THE UTILITIES DURING PROBING OR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE OHIO UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

2.) THE REMOVAL AND DEMOLITION OF EXISTING FACILITIES ARE THE CONTRACTOR'S RESPONSIBILITY.

3.) UNLESS OTHERWISE NOTED, EXISTING ASPHALT PAVEMENT AND CONCRETE PAVEMENTS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.

4.) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS OR SIDEWALKS. THE CONTRACTOR MUST USE WATER OR OTHER METHODS TO KEEP AIRBORNE DUST TO A REQUIRED MINIMUM.

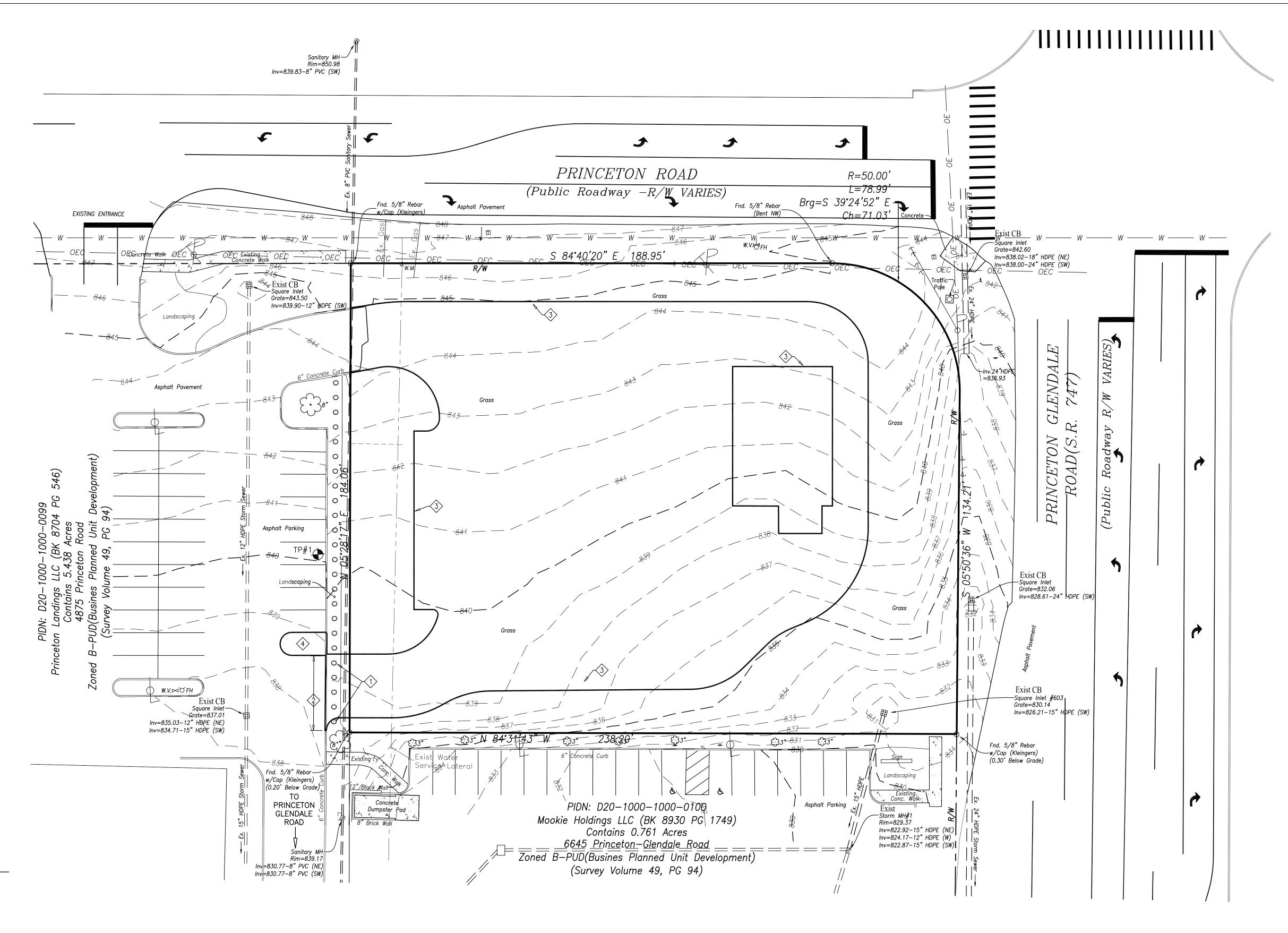
6.) ALL EXCAVATION FOR UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANIES.

5.) ROADJSROAD SMOLLODERS, IBOAROPANEMENT, PARKING PÁVEMENT, CURBS, DRIVEWAYS, SIDEWALKS, DITCHES, DRAINAGE PIPES AND STRUCTURES, FENCES, LAWNS, TREES, BUSHES, MAILBOXES, STREET AND PUBLIC SIGNS, ADVERTISEMENT SIGNS, ETC., WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED, RECONSTRUCTED, REPLACED, OR PROTECTED BY THE CONTRACTOR AT HIS EXPENSE. ALL DAMAGES TO EXISTING IMPROVEMENTS, EXCAVATION, AND/OR REMOVAL OF ANY AND ALL EXISTING IMPROVEMENTS SHALL BE KEPT TO A MINIMUM AND RESTORED OR REPLACED TO AT LEAST THEIR ORIGINAL

8.) THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE QUANTITY AND SCOPE OF CLEARING AND GRUBBING NEEDED ON THE SITE. THE TREES, SHRUBS, AND GRASS AREAS SHOWN ON THIS PLAN ARE NOT INTENDED TO BE A TREE SURVEY OR OTHERWISE. CONTRACTOR SHALL ESTABLISH COMPLETE QUANTITIES OF VEGETATIVE REMOVAL REQUIRED.

#### $I \square \square \square \square \square$

	<u>LEGEND</u>		
Existing		Abbreviations	
Po Lig Str Co De Shir Was Cle Sto Car Car	chor Guy wer Pole that Pole main Pole main Pole main Pole ciduous Tree rub e Hydrant ter Valve nitary Manhole ean Out orm Manhole tch Basin tch Basin tch Basin	FF MD W G SS OE R/W	Finsished Floor Man Door Water Gas Sanitary Sewer Overhead Electric Righ of Way



## **DEMOLITION KEYNOTES:**

- (1) REMOVE 5 SHRUBS.
- <2> SAWCUT CURB AND REMOVE.
- 3 OUTLINE OF PROPOSED IMPROVEMENTS (BUILDING AND PAVEMENT) SHOWN FOR REFERENCE
- 4 SAWCUT AND REMOVE ASPHALT PAVEMENT TO ACCOMMODATE INSTALLATION OF NEW CURB ISLAND. COORDINATE REMOVAL WITH ADJACENT PROPERTY OWNER.

UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED.



PLANS PREPARED BY: SBE Certified

THE ENGINEERING GROUP THE SURVEY COMPANY LAND DEVELOPMENT CONSULTING COMMUNITY AND ECONOMIC PLANNING

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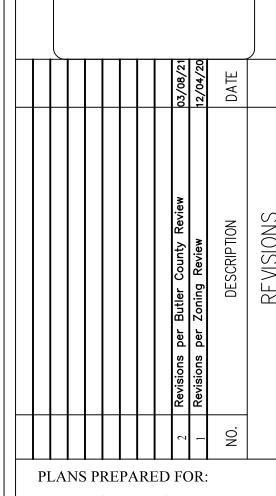
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PROJECT NAME:

**DUNKIN'** 

4969 Princeton Road Liberty Township Butler County, Ohio

SHEET TITLE:

LC PROJ. NO.

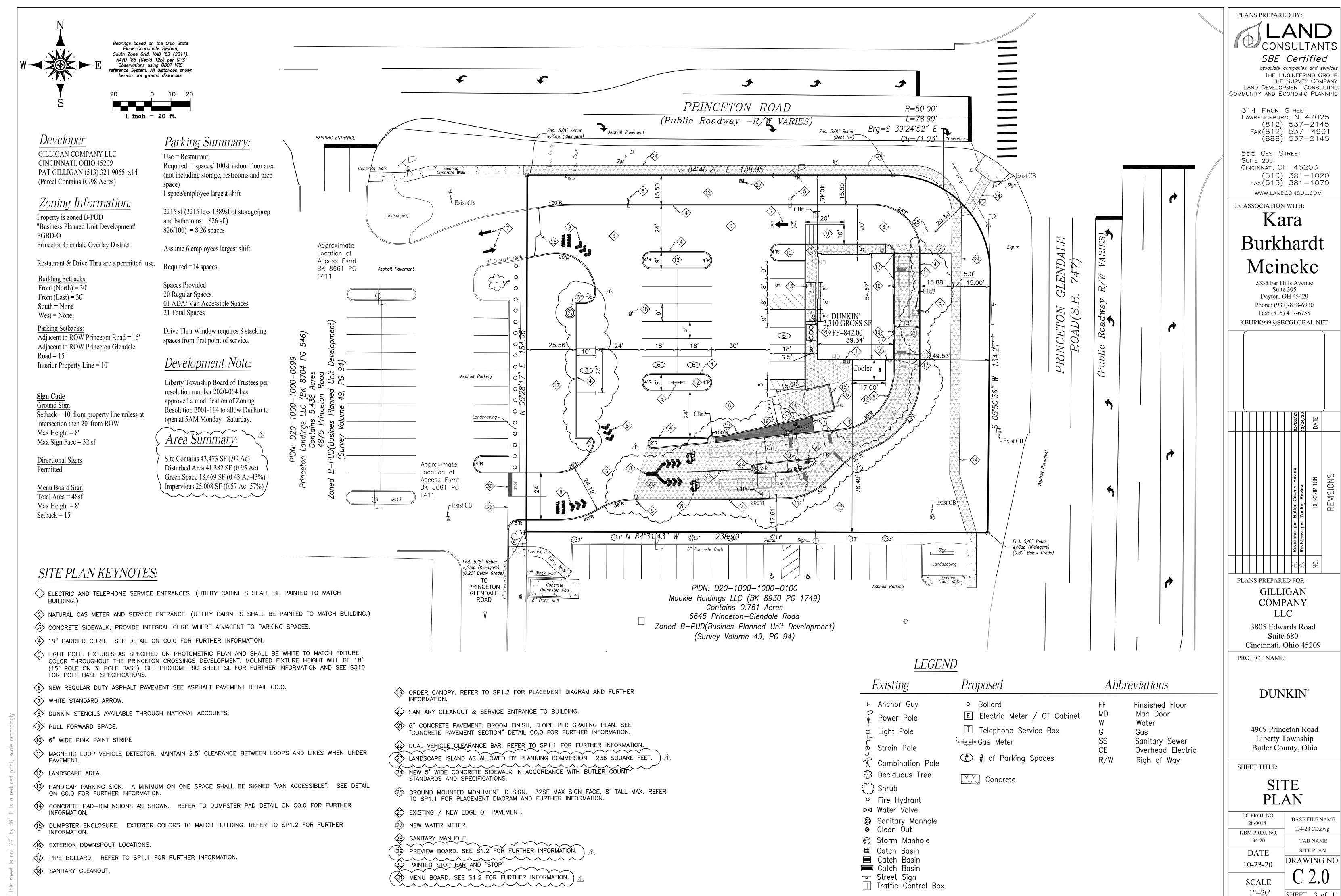
## **DEMOLITION PLAN**

BASE FILE NAME 20-0018 134-20 CD.dwg KBM PROJ. NO. 134-20 TAB NAME SITE PLAN DATE DRAWING NO. 01/19/21

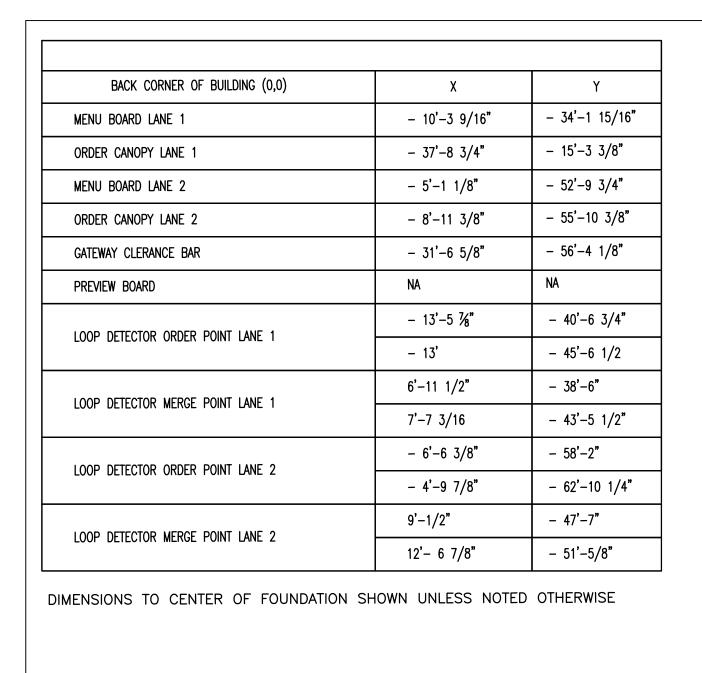
SCALE 1''=20'

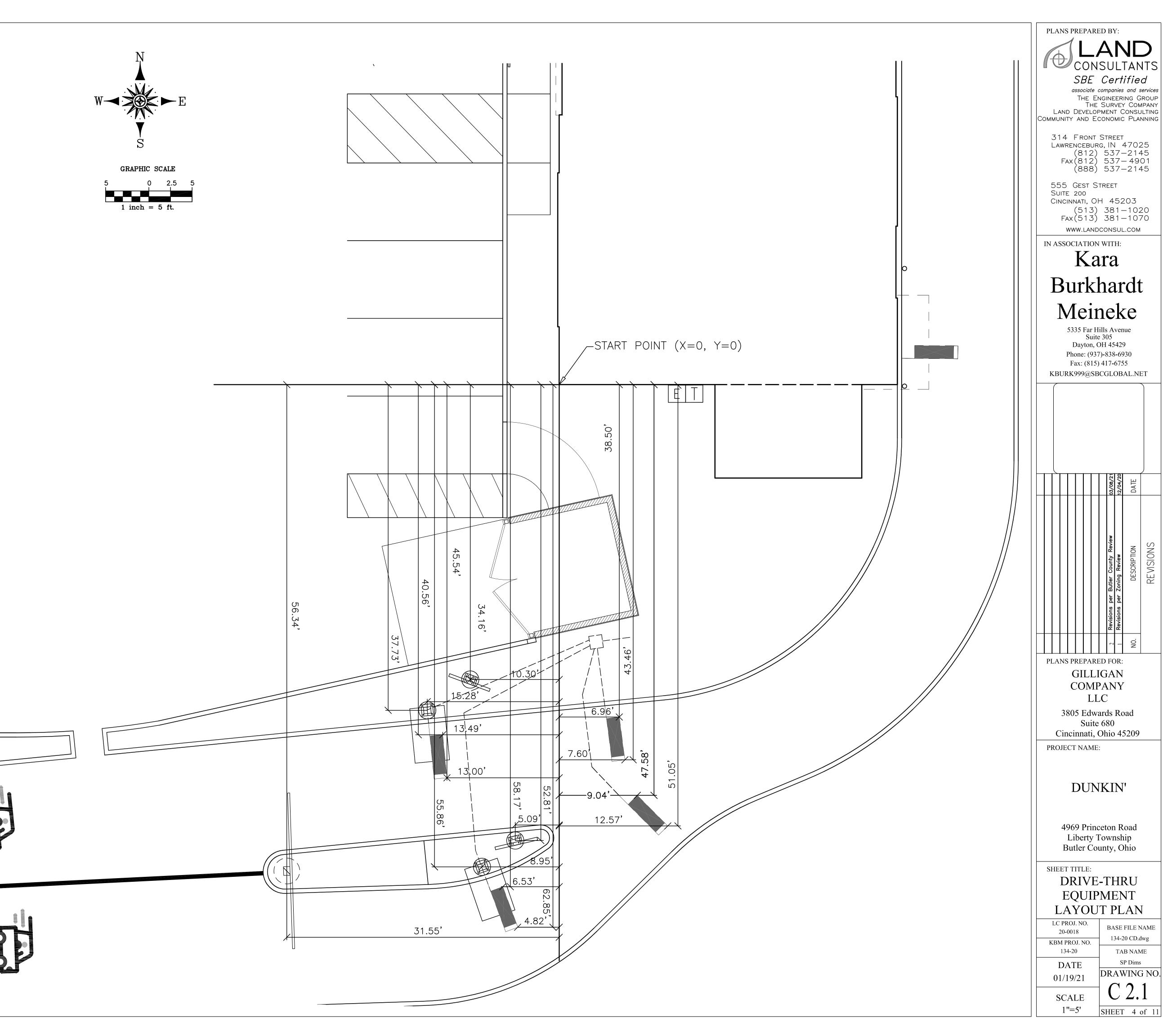
SHEET 2 of 11

☐ Traffic Control Box • 3/8" IRON PIN SET TRAVERSE POINT



SHEET 3 of 11

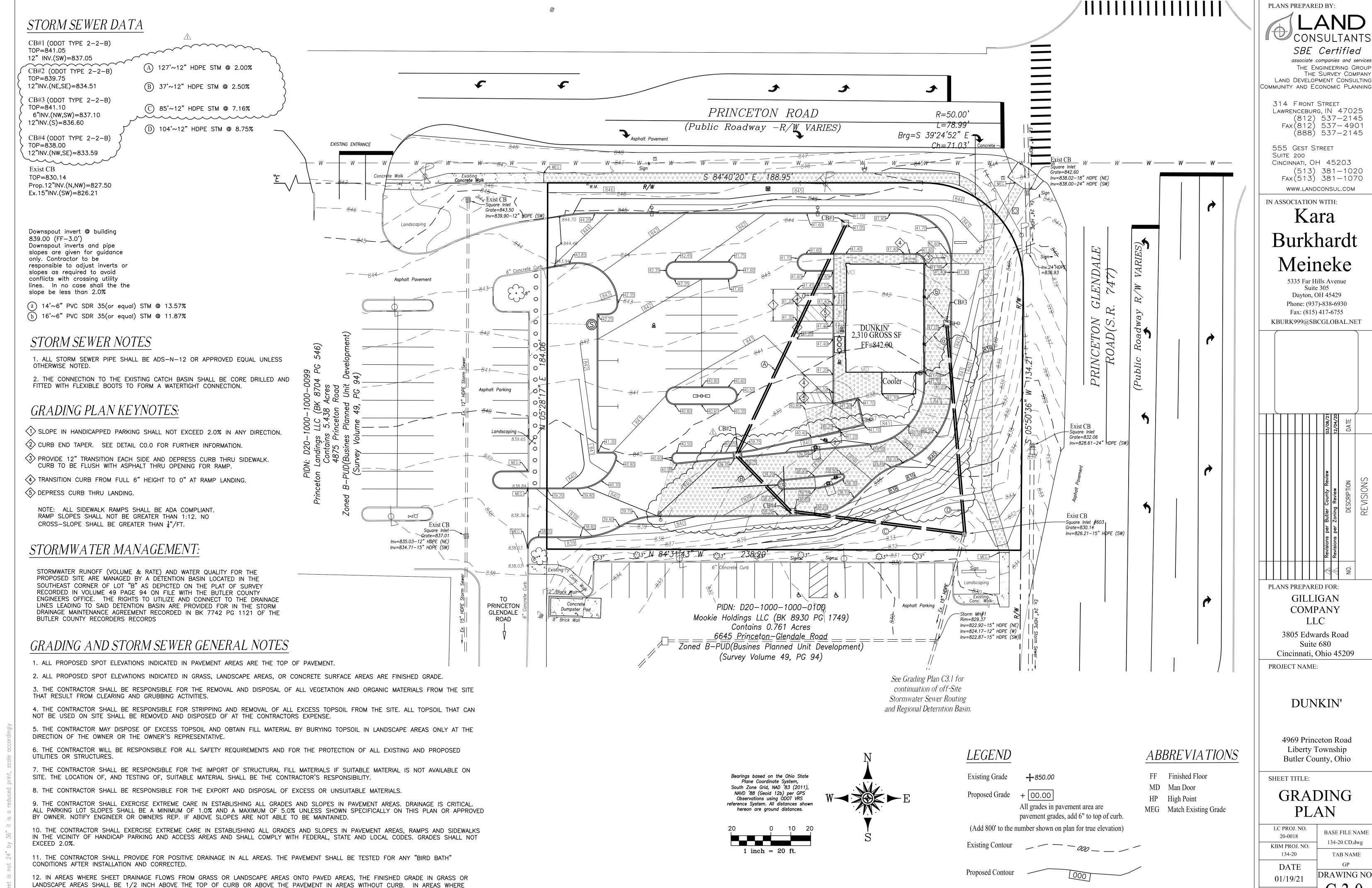




BASE FILE NAME

134-20 CD.dwg

SP Dims



**SCALE** 

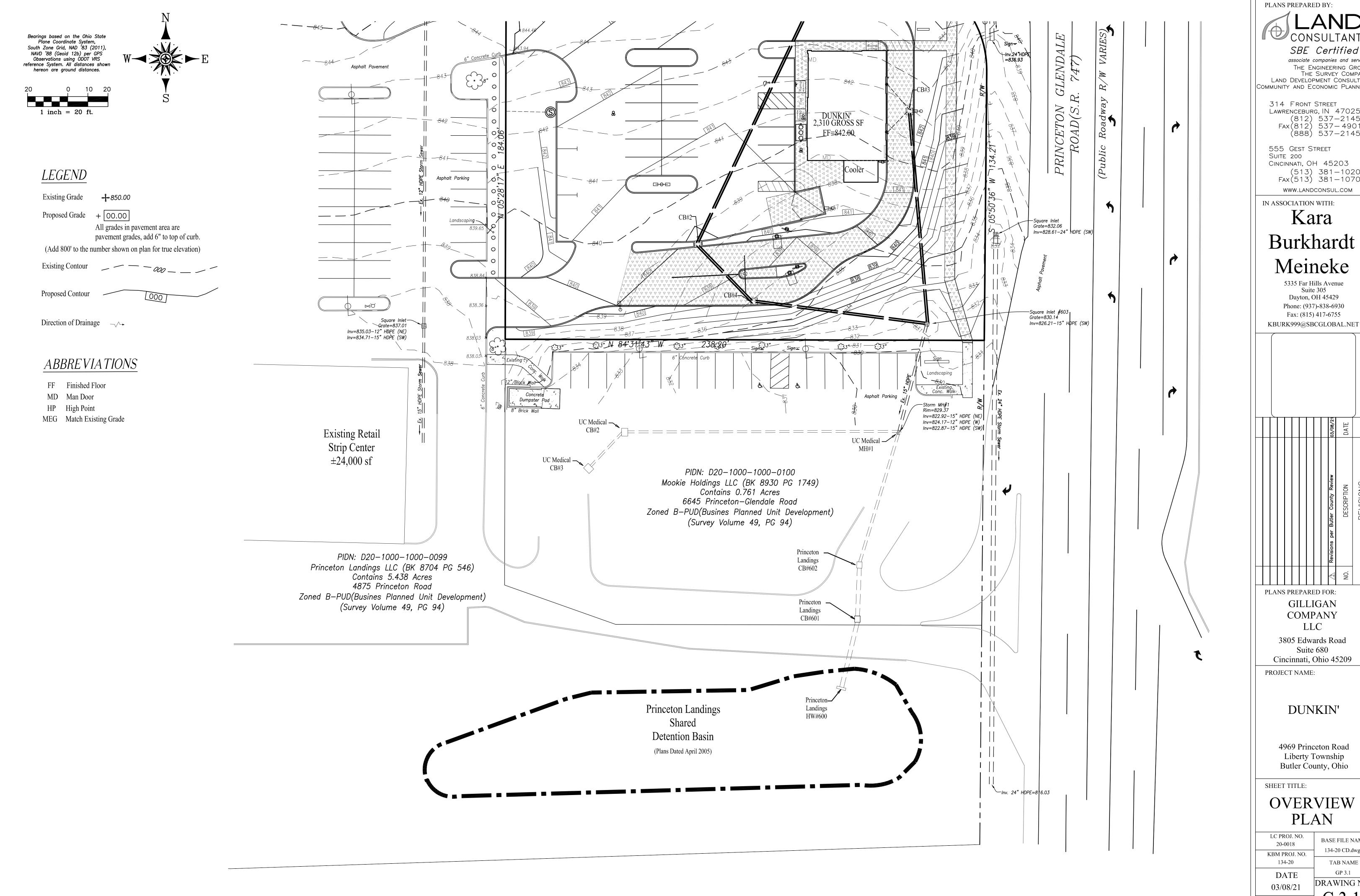
1''=20'

SHEET 5 of 11

Direction of Drainage — \\_

1/2" BELOW THE PAVEMENT.

SHEET DRAINAGE FLOWS FROM PAVEMENT TO GRASS OR LANDSCAPED AREAS, THE FINISHED GRADE IN GRASS OR LANDSCAPED AREAS SHALL BE



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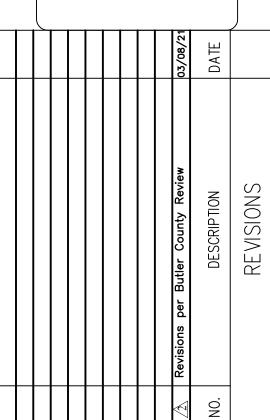
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**GILLIGAN** COMPANY

3805 Edwards Road Cincinnati, Ohio 45209

Liberty Township Butler County, Ohio

## **OVERVIEW** PLAN

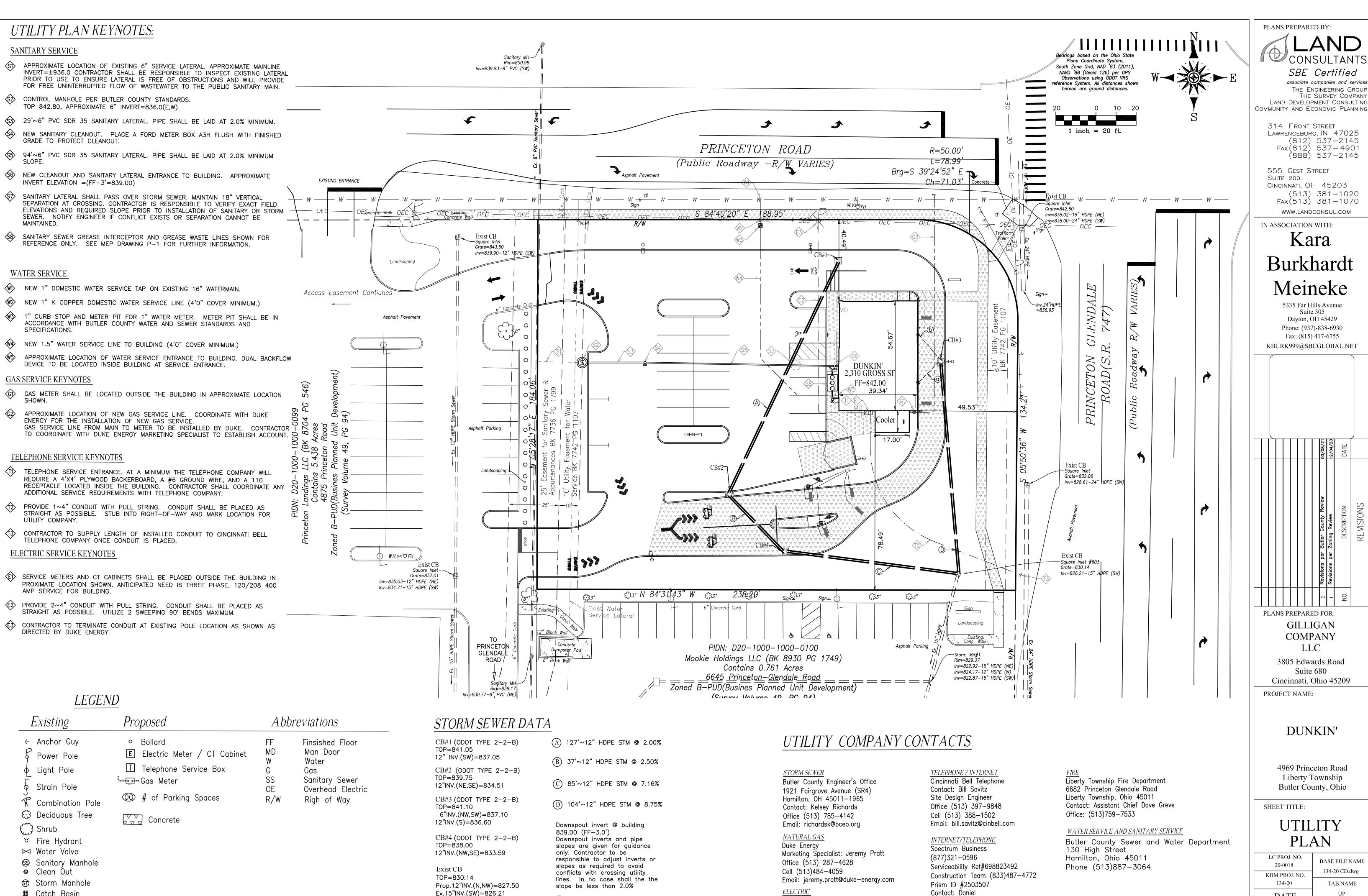
LC PROJ. NO. 20-0018	BASE FILE NAME	
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134-20	TAB NAME	

SCALE

1''=20'

DRAWING NO.

SHEET 6 of 11



(a) 14'~6" PVC SDR 35(or equal) STM @ 13.57%

(b) 16'~6" PVC SDR 35(or equal) STM @ 11.87%

Duke Energy

Engineer: Zac Cottingim

Office (513) 287-4774

Email: Zachary.cottingim@duke-energy.com

(727)214-1887

service\*

\*Call Daniel when/if ready to schedule

Ex.15"INV.(SW)=826.21

■ Catch Basin

Catch Basin

Catch Basin

Street Sign

Traffic Control Box

**PLAN** BASE FILE NAME

**GILLIGAN** 

**COMPANY** 

LLC

Suite 680

**DUNKIN'** 

SBE Certified

(812) 537-2145

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(513) 381-1020

Kara

Suite 305

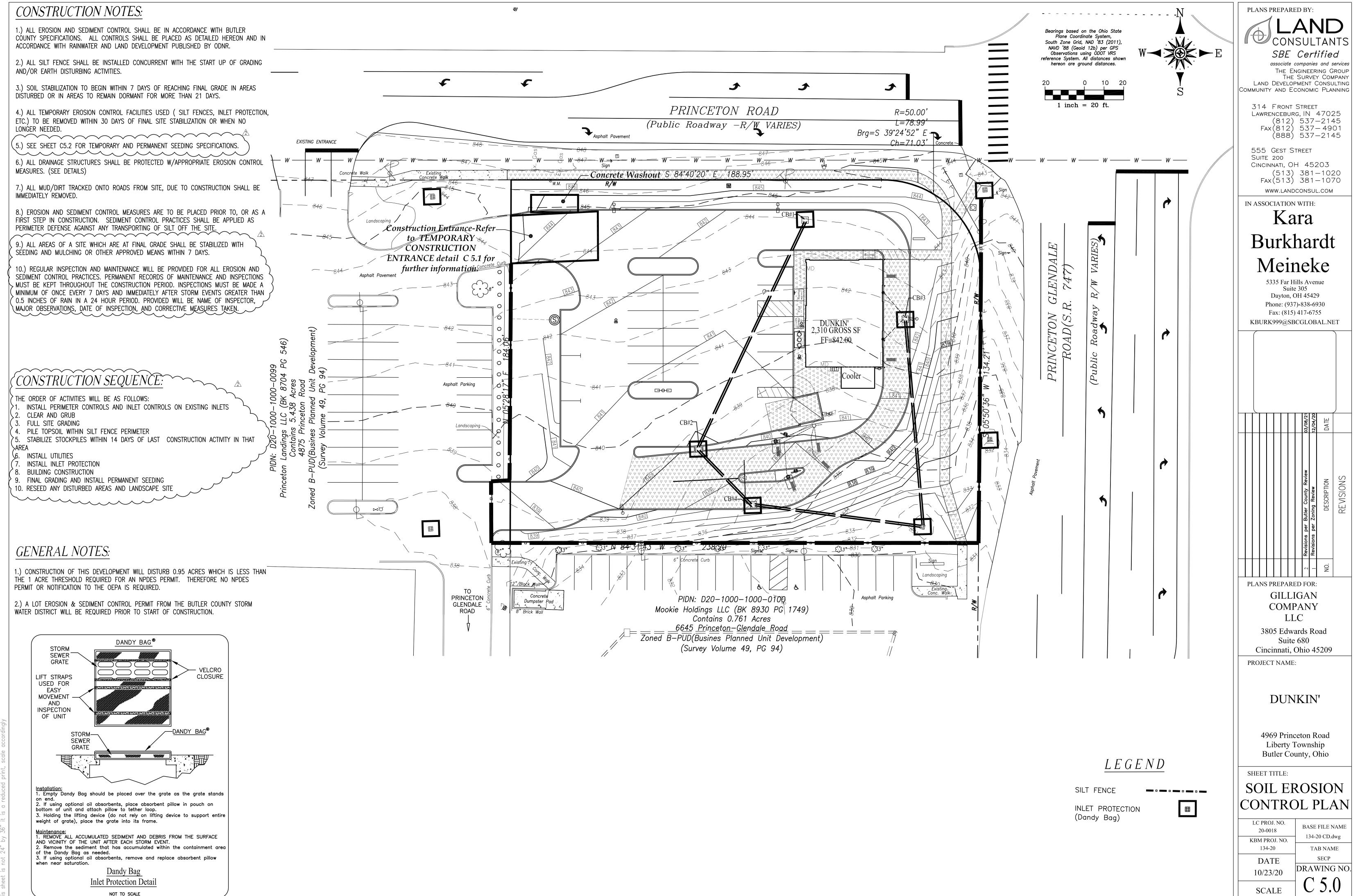
Dayton, OH 45429

THE ENGINEERING GROUP THE SURVEY COMPANY

20-0018 134-20 CD.dwg KBM PROJ. NO. 134-20 TAB NAME UP DATE DRAWING NO

01/19/21

SCALE 1''=20'SHEET 7 of 11



DRAWING NO. 10/23/20 **SCALE** 1''=20'SHEET 8 of 11

BASE FILE NAME

134-20 CD.dwg

TAB NAME

SECP

GILLIGAN

LLC

Suite 680

**DUNKIN'** 

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Kara

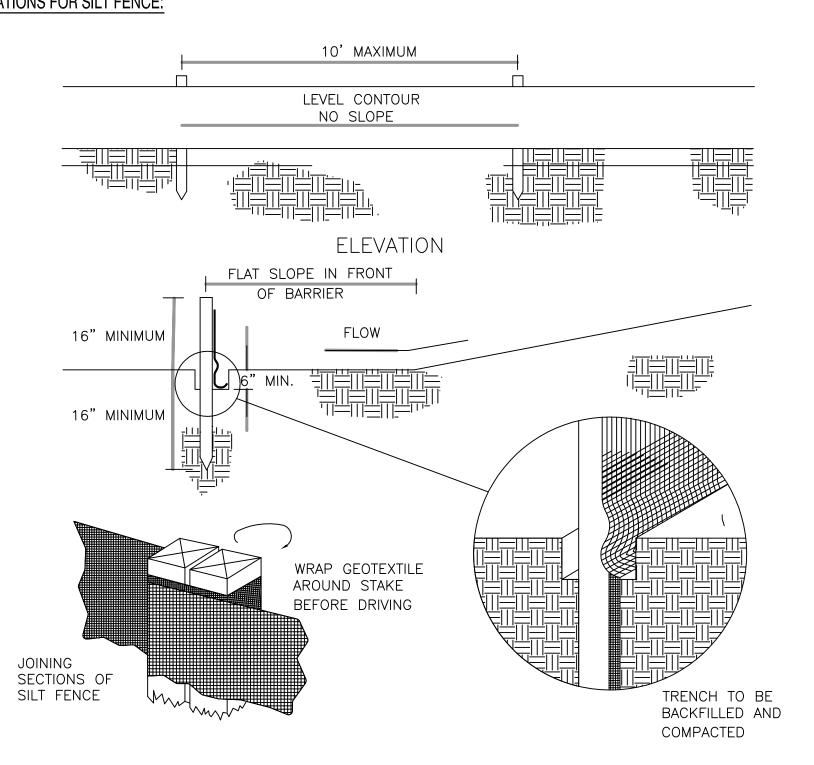
Suite 305

Dayton, OH 45429

THE ENGINEERING GROUP

A SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND SOMETIMES VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW. SILT FENCE IS USED TO PREVENT SEDIMENT-LADEN SHEET RUNOFF FROM ENTERING INTO DOWNSTREAM CREEKS AND SEWER SYSTEMS.

#### SPECIFICATIONS FOR SILT FENCE:



#### 1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WIL BE PREVENTED FROM FLOWING AROUND THE ENDS.

4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED. IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER. CABLE LAYING MACHINE. SLICING MACHINE. OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.

9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH AA MINIMUM 6 INCHES OVERLAP PRIOR TO DRIVING INTO THE GROUND. (SEE DETAILS)

10. MAINTENANCE — SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

#### CRITERIA FOR SILT FENCE MATERIALS:

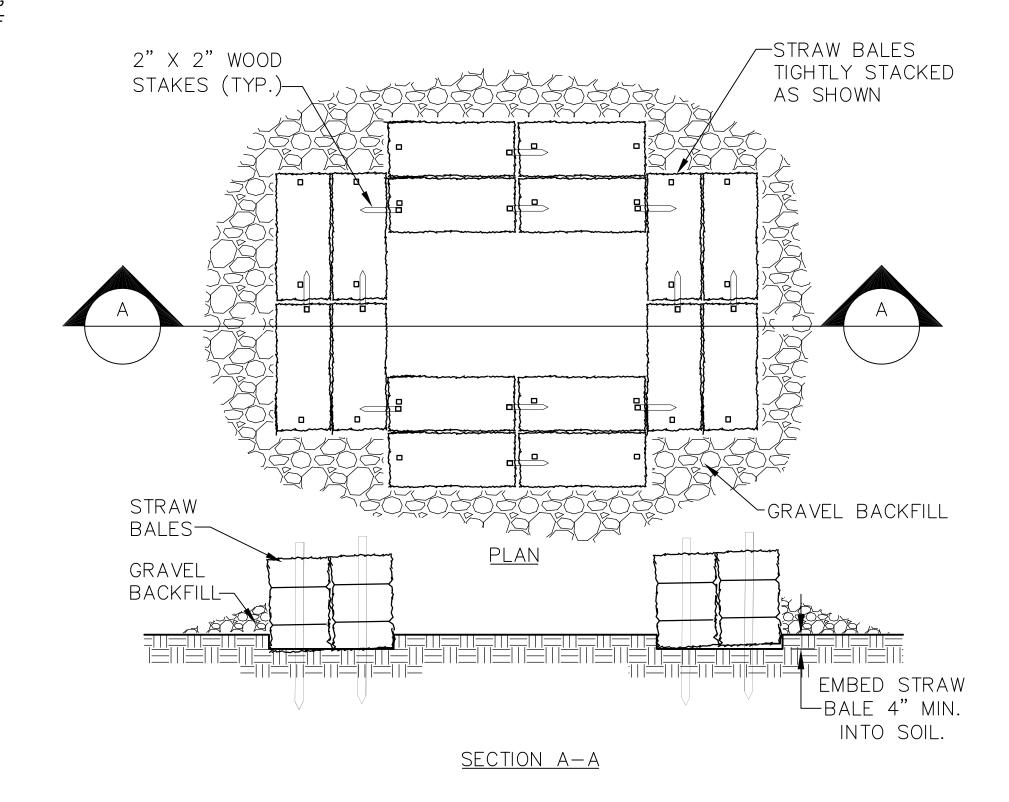
FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG.

1. WOOD POSTS WILL BE 2-BY-2 INCH NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINMUM 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.

#### 2. SILT FENCE FABRIC (SEE CHART BELOW):

FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LBS. (535 N)	ASTM D 4632
MAXIMUM ELONGATION AT 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS (180 N)	ASTM D 4533
APPARENT OPENING SIZE	< OR = 0.84 MM	ASTM D4751
MINIMUM PERMITTIVITY	1X10-2 SEC1	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4355

#### **CONCRETE WASHOUT:**



#### SPECIFICATIONS FOR CONCRETE WASHOUT:

1. THE RESIDUE OR CONTENTS OF ALL CONCRETE MIXERS. DUMP TRUCKS. OTHER CONVEYANCE EQUIPMENT AND FINISHING TOOLS SHALL BE WASHED INTO CONCRETE CLEAN-OUT STRUCTURES CONSISTING OF A STRAW BALE BARRIER WITH GRAVEL BACKFILL. THE LENGTH AND WIDTH OF THESE STRUCTURES SHALL BE AS DETERMINED BY THE CONTRACTOR TO FACILITATE THE PARTICULAR EQUIPMENT USED. THESE STRUCTURES SHALL BE CONSTRUCTED ON LEVEL GROUND AT LEAST 100' FROM THE NEAREST WATERCOURSE, DRAINAGE SWALE OR INLET. AT NO TIME SHALL THE STRUCTURE BE ALLOWED TO BE MORE THAN 50% FULL. THE CONTRACTOR SHALL MAINTAIN THESE PONDS UNTIL ALL CONCRETE PLACEMENT IS COMPLETE FOR THE PROJECT.

2. EMBED THE STRAW BALES 4" INTO THE SOIL. PROVIDE TWO ROWS OF BALES, AS SHOWN ON THE DETAIL, WITH ENDS AND CORNERS TIGHTLY ABUTTING. ORIENT THE STRAW BALES LENGTHWISE WITH BINDINGS AROUND THE SIDES OF THE BALES SO THE WIRE DOES NOT CONTACT THE SOIL. DRIVE 2"X2" WOOD STAKES THROUGH EACH BALE, TO SECURELY ANCHOR THE BALE AND CONNECT ADJACENT BALES. GRAVEL BACKFILL SHALL BE PROVIDED AND TAMPED AROUND THE OUTSIDE PERIMETER OF THE BALES TO PREVENT EROSION AND FLOW AROUND THE BALES.

3. THE INTENT OF THESE STRUCTURES IS TO COLLECT ALL CONCRETE WASH OUT WATER AND ALLOW IT TO DRY TO A SOLID MATERIAL. AFTER DRYING, THE SOLID MATERIAL CAN BE REMOVED WITH A LOADER OR EXCAVATOR FOR PROPER DISPOSAL. WASH OUT WILL NOT BE PERMITTED IN ANY OTHER AREAS.

4. USE THE MINIMUM AMOUNT OF WATER TO WASH THE VEHICLES AND EQUIPMENT. NEVER DISPOSE OF WASH OUT INTO THE STREET, STORM INLET, DRAINAGE SWALE OR WATERCOURSE. DISPOSE OF SMALL AMOUNTS OF EXCESS DRY CONCRETE, GROUT AND MORTAR IN THE TRASH. ANY SOAPS THAT ARE UTILIZED SHALL BE PHOSPHATE-FREE AND BIODEGRADABLE.

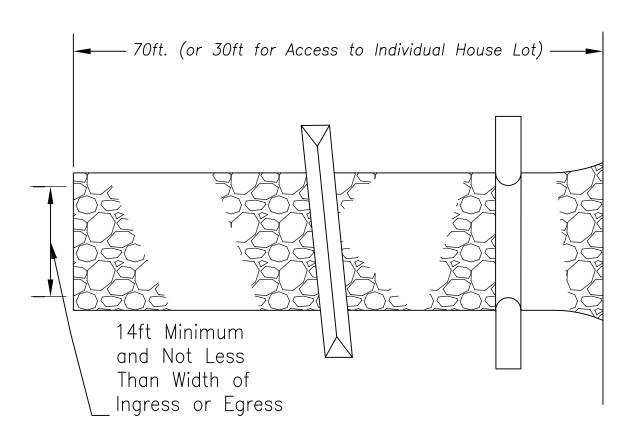
5. ADDITIONAL CONCRETE CLEAN-OUT STRUCTURES SHALL BE CONSTRUCTED WITHIN THE SPECIFIED AREA AS NEEDED BASED UPON THE VOLUME OF WASH OUT GENERATED DAILY.

#### **CONSTRUCTION ENTRANCE:**

#### **DESCRIPTION:**

A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH GEOTEXTILE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC. LOCATED AT POINTS OF INGRESS/EGRESS, THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

#### (Not To Scale)



PLAN VIEW Right of Way Diversion

Right of Way Diversion as Needed

PROFILE

#### SPECIFICATIONS FOR CONSTRUCTION ENTRANCE:

1. STONE SIZE - ODOT #2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.

of Divert Runoff

2. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).

3. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.

4. WIDTH - THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

5. GEOTEXTILE - A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA, PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

#### FIGURE 7.4.1

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE			
MINIMUM TENSILE STRENGTH	200 LBS.		
MINIMUM PUNCTURE STRENGTH	80 PSI.		
MINIMUM TEAR STRENGTH	50 LBS.		
MINIMUM BURST STRENGTH	320 PSI.		
MINIMUM ELONGATION	20%		
EQUIVALENT OPENING SIZE	EOS < 0.6 MM.		
PERMITTIVITY	1X10-3 CM/SEC.		

6. TIMING - THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.

7. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.

8. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.

9. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.

10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION—SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

11. REMOVAL - THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

PLANS PREPARED BY:

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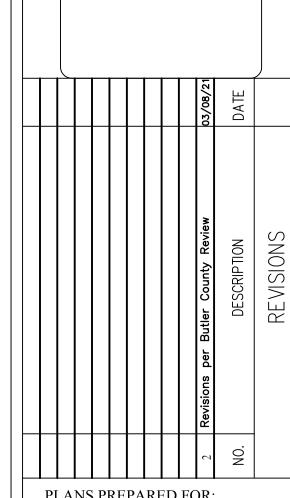
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3805 Edwards Road Suite 680 Cincinnati, Ohio 45209

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4969 Princeton Road Liberty Township Butler County, Ohio

SHEET TITLE:

#### SOIL EROSION CONTRD OF DEAD

CONTRO	)L PLAN
LC PROJ. NO. 20-0018	BASE FILE NAME
KBM PROJ. NO.	134-20 CD.dwg

134-20 TAB NAME SECP DATE DRAWING NO. 02/02/21

**SCALE** 1"=20'

SHEET 9 of 11

#### DESCRIPTION:

TEMPORARY SEEDINGS ESTABLISH TEMPORARY COVER ON DISTURBED AREAS BY PLANTING APPROPRIATE RAPIDLY GROWING ANNUAL GRASSES OR SMALL GRAINS. TEMPORARY SEEDING PROVIDES EROSION CONTROL ON AREAS IN BETWEEN CONSTRUCTION OPERATIONS. GRASSES WHICH ARE QUICK GROWING ARE SEEDED AND USUALLY MULCHED TO PROVIDE PROMPT, TEMPORARY SOIL STABILIZATION. IT EFFECTIVELY MINIMIZES THE AREA OF A CONSTRUCTION SITE PRONE TO EROSION AND SHOULD BE USED EVERYWHERE THE SEQUENCE OF CONSTRUCTION OPERATIONS ALLOWS VEGETATION TO BE ESTABLISHED.

#### SPECIFICATIONS FOR TEMPORARY SEEDING:

TEMPORARY SEEDING SPECIES SELECTION		
SEEDING DATES	SPECIES	
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	
	OATS TALL FESCUE ANNUAL RYEGRASS	
AUGUST 16 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	
	WHEAT TALL FESCUE ANNUAL RYEGRASS	
	PERENNIAL RYE TALL FESCUE ANNUAL RYEGRASS	
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	
NOV. 1 TO SPRING SEEDING USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING		

1. STRUCTURAL EROSION AND SEDIMENT-CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

- 2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 21 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDED WITHIN 7 DAYS AFTER GRADING.
- 3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- 4. SOIL AMENDMENTS—TEMPORARY VEGETATION SEEDING RATE SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATE FOR LIME AND FERTILIZER SHALL BE USED.
- 5. SEEDING METHOD——SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE, AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

#### MULCHING TEMPORARY SEEDING:

1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

#### 2. MATERIALS:

- STRAW--IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 LB. PER 1.000 SQUARE FEET (TWO TO THREE BALES).
- HYDROSEEDERS--IF WOOD-CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.
- OTHER-OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE.
- 3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

#### ANCHORING METHODS:

-MECHANICAL--A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT. TO PUNCH OR ANCHOR THE MULCH. MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, LEFT TO A LENGTH OF APPROXIMATELY 6 INCHES.

-MULCH NETTINGS-NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATION RUNOFF AND ON CRITICAL SLOPES.

-SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC). DCA-70. PETROSET. TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

-WOOD-CELLULOSE FIBER-WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. PER ACRE. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER. AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. PER 100 GALLONS. BASIN OUTLET/WATER QUALITY CONTROL STRUCTURE DETAIL

#### PERMANENT SEEDING SPECIFICATIONS FOR PERMANENT SEEDING:

#### SITE PREPARATION:

1. SUBSOILER. PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.

2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING 3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

#### SEEDBED PREPARATION:

1. LIME—-AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECCOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,00-SQ. FT. R 2 TONS PER ACRE.

2 FERTILIZER -- FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. INPLACE OF A SOIL TEST. FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000-SQ. FT. OR 1,000 POUNDS PER ACRE OF A 10-10-10 OR 12-12-12 ANALYSES.

3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DIS HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

#### **SEEDING DATES AND SOIL CONDITIONS:**

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE-SPECIFIED DATES. ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING. SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

#### DORMANT SEEDING:

1. SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DUING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.

2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING": FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING. FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE. APPLY THE SELECTED SEED MIXTURE. MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER ON A FIRM MOIST SEEDBED. WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED. THE SEEDBED SHOULD BE FIRMED FOLOWING SEEDING OPERATIONS WITH A CULTIPACKER. ROLLER. OR LIGHT DRAG. ON SLOPING LAND. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

#### MULCHING:

1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.

2. MATERIALS STRAW -- IF STRAW IS USED IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 POUNDS (TWO TO THREE BALES) PER 1,000-SQ. FT. THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY APPLIED SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1.000-SQ. FT. SECTIONS AND SPREAD TWO 45-LB BALES OF STRAW IN EACH SECTION.

OTHER—OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE. CHAPTER 7 SOIL STABILIAZATION.

3.STRAW AND MULCH ANCHORING METHOD——STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

MECHANICAL—A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN 6 INCHES.

MULCH NETTING—-NETTING SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.

ASPHALT EMULSION— ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GALLONS PER ACRE.

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

SYNTHETIC BINDERS——SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI—TAC), DCA—70, PETROSET, TERA TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE MANUFACTURER.

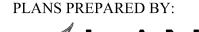
WOOD CELLULOSE FIBER--WOOD CELLULOSE FIBER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 POUNDS CELLULOSE PER 100 GALLONS OF WATER.

#### **IRRIGATION:**

PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DR WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH, IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF. TABLE 7.10.2

#### PERMANENT SEEDING

	CLL	DING RATE	
	JEL	DING RAIL	
SEED MIX	LBS/ACRE	LBS/1,000 S.F.	NOTES:
GENER	AL USE		
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS TALL FESCUE	20-40 10-20 20-40 40-50	1/2-1 1/4-1/2 1/2-1 1-1 1/4	FOR CLOSS MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TURF-TYPE (DWARF) FES	CUE 90	2 1/4	
STEEP BANKS		)PES	
TALL FESCUE CROWN VETCH TALL FESCUE FLAT PEA TALL FESCUE	40-50 10-20 20-30 20-25 20-30	1-1 1/4 1/4-1/2 1/2-3/4 1/2-3/4 1/2-3/4	DO NOT SEED PAST AUGUST  DO NOT SEED PAST AUGUST
ROAD DITCHE	S OR SWALES		
TALL FESCUE TURF—TYPE (DWARF) FESCUE KENTUCKY BLUEGRASS	40-50 90 5	1-1 1/4 2 1/4 0.1	
	AWNS		
KENTUCKY BLUEGRASS PERENNIEL RYEGRASS KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120 100-120	2 2 2 1-1/2	FOR SHADED AREAS
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.			



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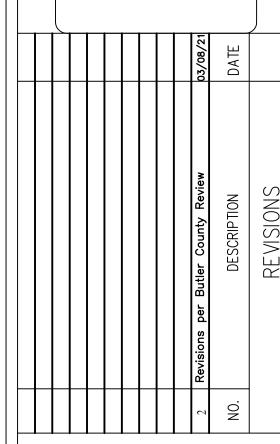
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PROJECT NAME:

**DUNKIN'** 

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SHEET TITLE:

## SOIL EROSION CONTROL PLAN

LC PROJ. NO. BASE FILE NAME 20-0018 134-20 CD.dwg KBM PROJ. NO. 134-20 TAB NAME SECP

DATE DRAWING NO 01/20/21

**SCALE** 1"=20'

SHEET 10 of 11

