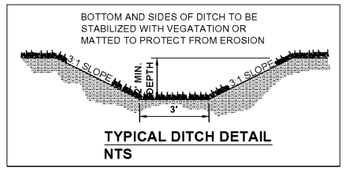
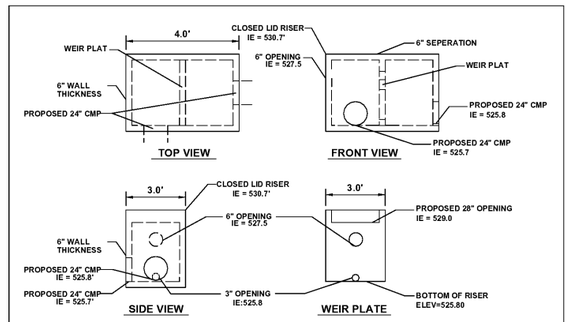
GRADING & DRAINAGE

1. PROTECT TREES NOT MARKED FOR REMOVAL OR LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION. IF A TREE TRUNK OR BRANCH IS CUT OR SCARRED THEN THE AFFECTED AREA SHALL BE TREATED WITH A WOUND PAINT TO PREVENT DISEASE.
2. THE AREA WITHIN THE LIMITS OF GRADING SHALL BE GRUBBED TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW EXISTING GROUND LINE ELEVATIONS TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIALS. THE TOP NINE (9) INCHES OF EXPOSED SUBGRADE, AFTER CUTTING TO DESIRED SUBGRADE ELEVATION AND/OR BEFORE PLACEMENT OF FILL, SHOULD BE SCARIFIED AND RECOMPACTED TO THE COMPACTION REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT.
3. ANY BUILDINGS TO BE DEMOLISHED DURING CLEARING OPERATIONS SHALL BE DONE SO ACCORDING TO ALL APPLICABLE LAWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING AN ASBESTOS SURVEY OF THE STRUCTURE, OBTAINING AIR QUALITY PERMITS AND COORDINATING WITH UTILITY OWNERS TO SHUTDOWN SERVICE.
4. ALL BURNING OF TREES, BRUSH AND DEBRIS SHALL BE DONE IN CONFORMANCE WITH ALL LOCAL, STATE AND FEDERAL GUIDELINES.
5. THE CONTRACTOR SHALL CONSTRUCT THE STORM WATER DETENTION FACILITIES PRIOR TO BEGINNING ANY OTHER GRADING OPERATIONS.
6. THE SLOPES OF ALL EXCAVATED AREAS, DITCHES, WATERWAYS, CHANNELS, BORROW PITS, AND EMBANKMENTS SHALL BE SO TRIMMED AND SHAPED AS TO BE IN REASONABLY CLOSE CONFORMITY WITH THE LINES AND GRADES SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
7. BORROW EXCAVATION FOR THE CONSTRUCTION OF EMBANKMENTS OR OTHER PORTIONS OF WORK SHALL BE OBTAINED FROM APPROVED SOURCES. BORROW MATERIAL SHALL BE AASHTO M145, CLASSIFICATION A-6 OR BETTER IF REASONABLY AVAILABLE.
8. SOLID ROCK SHALL BE DEFINED AS (1) ROCK WHICH CANNOT BE ECONOMICALLY EXCAVATED WITHOUT THE USE OF EXPLOSIVES OR (2) ANY ROCK, BOULDER OR FRAGMENT OF ROCK OR CONCRETE EXCAVATED FROM A FORMATION HAVING A VOLUME GREATER THAN ONE HALF (1/2) CUBIC YARD. SHOULD SOLID ROCK BE ENCOUNTERED AND EXCAVATION OF SOLID ROCK IS COVERED WITHIN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. REPRESENTATIVES OF THE ENGINEER SHALL MEASURE THE SOLID ROCK EXCAVATION TO DETERMINE THE QUANTITY OF SOLID ROCK EXCAVATED. THE DETERMINATION OF THE AMOUNT OF SOLID ROCK EXCAVATION SHALL BE THE RESPONSIBILITY OF THE ENGINEER.
9. THE CONTRACTOR SHALL BE REQUIRED TO EMPLOY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF TENNESSEE TO ENSURE THAT EMBANKMENTS ARE BEING CONSTRUCTED IN ACCORDANCE WITH THE PLANS.
10. ALL SLOPES SHALL BE AS INDICATED ON PLANS.
11. THE CONTRACTOR SHALL BE REQUIRED TO PLACE TOPSOIL TO A DEPTH OF SIX (6) INCHES ON ALL DISTURBED AREAS. PERMANENT EROSION CONTROL MEASURES (SEEDED AND MULCHED) SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING.
12. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEEDING AND MULCH. MULCH MATERIALS CAN CONSIST OF HAY OR STRAW AT THE APPROXIMATE RATE OF 75 POUNDS PER 1000 SQUARE FEET AND HELD IN PLACE BY THE USE OF A MULCH BINDER.
13. DURING PERIODS OF EXTREME DRYNESS, THE CONTRACTOR SHALL KEEP AREAS BEING GRADED DAMPENED BY WATERING TO MINIMIZE THE EFFECTS OF DUST ON ADJOINING PROPERTIES.
14. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ALL DETENTION AND WATER QUALITY BASINS HAVE ADEQUATE STORAGE PRIOR TO FINAL STABILIZATION.
15. THE CONTRACTOR SHALL BE REQUIRED TO SIGN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS WELL AS THE NOTICE OF INTENT (NOI). THE CONTRACTOR UNDERSTANDS THAT HE MUST ABIDE BY THE REGULATIONS CONTAINED IN NPDES PERMIT NUMBER TNR 1000000, AND THAT HIS ON-SITE ACTIVITIES ARE THEREBY REGULATED.
16. PRIOR TO GRADING OPERATIONS THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING UP AND ATTENDING A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE GOVERNING AGENCY IN ORDER TO OBTAIN THE GRADING PERMIT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL REQUIRED PARTIES (OWNER OR ENGINEER, GRADING CONTRACTOR, GENERAL CONTRACTOR, INDIVIDUAL RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROLS) ARE PRESENT, AND ALL REQUIRED DOCUMENTS ARE PROVIDED TO THE STREET DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.
17. ALL DITCHES AND BASINS SHALL BE MATTED UNLESS OTHERWISE NOTED. MATTING SHALL BE TYPE S 150 (NORTH AMERICAN GREEN) OR EQUIVALENT AND SHOULD BE INSTALLED PER MANUFACTURER'S RECOMMENDATION.
18. ALL PROPOSED SPOT ELEVATIONS ARE TO FINISH GRADE OF ASPHALT IN PARKING AREAS OR FINISH GRADE OF DIRT IN GRASS AREAS UNLESS NOTED OTHERWISE. SEE SURFACE MATERIALS SHEET.
19. CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY. INSTALL ALL UTILITIES PRIOR TO INSTALLATION OF NEW PAVEMENT.
20. CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN. DO NOT OPERATE OR STORE HEAVY EQUIPMENT, NOR HANDLE, NOR STORE MATERIALS WITHIN THE DRIP LINES OF TREES OR OUTSIDE THE LIMIT OF GRADING.



TYPICAL DITCH DETAIL
NTS



OUTLET STRUCTURE "D" DETAIL
NOT TO SCALE

DRAINAGE NOTES:

1. **SEE MPE PLANS FOR EXACT ROOF DRAIN LOCATIONS AND CONNECTION DETAIL.**
2. **CONTRACTOR TO PROVIDE ALL WYE, TEES, ADAPTORS, ETC. NECESSARY FOR ROOF DRAIN SYSTEM.**

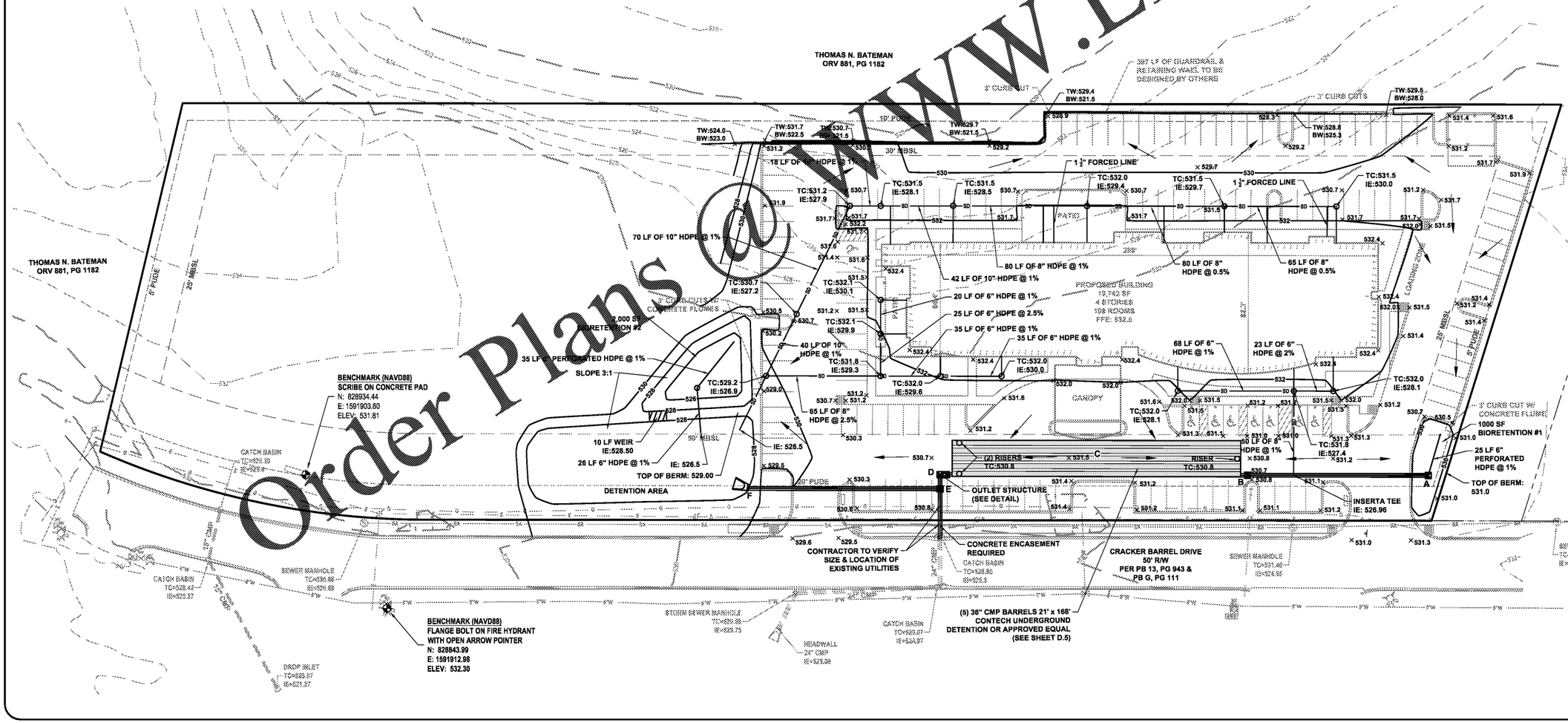
0 30 60 Feet
GRAPHIC SCALE
1" = 30'

STRUCTURE TABLE

STRUCTURE	TYPE	INVERT IN	INVERT OUT	TOP OF GRATE
A	AREA DRAIN		527.35	530.50
B	AREA DRAIN	526.85	526.75	530.70
C	UD SYS.	526.73	526.63	530.80
D	OUTLET STRUCT	525.79	525.65	530.70
E	JUNCTION BOX	525.65	525.55	530.70
EXIST	EXIST CB	525.40	525.30	530.07
F	HEADWALL		526.20	

PIPE TABLE

FROM STRUCTURE	TO STRUCTURE	PIPE SIZE (IN)	PIPE MATERIAL	PIPE LENGTH (FT)	SLOPE
A	B	15	CMP	100	0.50%
B	E	24	CMP	4	0.50%
C	UD SYS.	UD	UD	168	0.50%
D	E	24	CMP	8	0.50%
E	EXIST	24	CMP	30	0.50%
F	E	12	CMP	110	0.50%



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EDWARD C. BURCHETT
REGISTERED ENGINEER
AGRICULTURE
3/11/19
COM MERCE
17736
STATE OF TENNESSEE

REVISIONS

DATE	COMMENTS
12/5/18	CHANGED PARKING LAYOUT
1/07/19	REMOVED ONE 90° BEND, MOVED FIRE HYDRANT, ADDED SIDEWALK ALONG BARREL DRIVE
3/11/19	NEW FLOOR PLAN. ALL UTILITIES EXITING BUILDING MOVED. CHANGED/ADDED ROOF DRAINS. STRUCTURES 'A, B & C' CHANGED

HOLIDAY INN

GRADING & DRAINAGE PLAN

215 CRACKER BARREL DR., CLARKSVILLE
MONTGOMERY COUNTY, TENNESSEE
March 11, 2019

McKAY-BURCHETT & COMPANY ENGINEERS
1545 Madison Street
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DRAWN BY: KCOOK
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SHEET: C 2.00