PROPOSED RETAIL SHOPS FOR
OUTLOT #6 - MASSILLON MARKET PLACE
MASSILLON MARKET PLACE BOULEVARD
MASSILLON, STARK COUNTY, OHIO

UTILITY CONTACT LIST

SEWER: CITY OF MASSILLON
ONE JAMES DUNCAN PLAZA
MASSILLON, OHIO 44646

WATER: CONSUMERS OHIO
123 THIRD STREET, SE
MASSILLON, OH 44648-0584
CONTACT: MR. DONALD SNYDER
PHONE: (330) 832-5764 EXT 205

TELEPHONE: AMERITECH
500 WEST BOWERY STREET
AKRON, OH 44308
CONTACTS: MRS. MAUREEN WILLIAMS
PHONE: (330) 384-3586

GAS: EAST OHIO GAS
4725 SOUTHWAY STREET
CANTON, OH 44706-1936
CONTACTS: MR. MICHAEL STANFAR
PHONE: (330) 478-3127

NORTHEAST OHIO
9081 US 250
STRASBURG, OH 44680
CONTACTS: MR. JOE KAMARA
PHONE: 1-800-848-5589

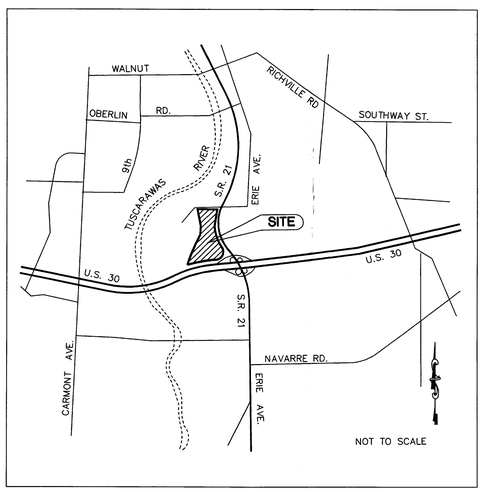
ELECTRIC: OHIO EDISON
1910 WEST MARKET STREET
FAIRLAWN BUILDING ONE
AKRON, OH 44313
CONTACTS: MR.

GOVERNMENTAL AGENCIES

SITE PLAN APPROVAL
CITY OF MASSILLON
ONE JAMES DUNCAN PLAZA
MASSILLON, OHIO 44646
CONTACTS:
CITY ENGINEER: MR. STEVE HAMIT (330) 830-1722

CONSTRUCTION SEDIMENT CONTROL PLAN
STARK COUNTY NATURAL RESOURCE CONSERVATION SERVICE
2311 COLUMBUS ROAD NE
CANTON, OHIO 44705
CONTACTS: JULIE BERBARI (330) 489-4476

BUILDING CODE OFFICIAL
CITY OF MASSILLON
ONE JAMES DUNCAN PLAZA
MASSILLON, OHIO 44646
CONTACTS:
CHIEF BUILDING OFFICIAL: MR. JIM WITHERSPOON (330) 830-1724



SITE LOCATION MAP

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1	C-0	COVER SHEET			
2	C-1	SITE PLAN	1/27/03	4/14/03	CITY COMMENTS
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4	C-3	UTILITY PLAN	1/27/03	4/14/03	CITY COMMENTS
5	C-4	EROSION CONTROL PLAN	1/27/03	4/14/03	CITY COMMENTS
6	ST-1	STORM SEWER PROFILES	1/27/03	4/14/03	CITY COMMENTS
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11	L-1	LANDSCAPE PLAN	3/18/03		LANDSCAPE TECHNOLOGIES

ENGINEER-

Wolverton & Associates
INCORPORATED
Consulting Engineers & Land Surveyors
5300 Oakbrook Parkway · Suite 150 · Norcross, Georgia 30093
Phone: (770) 447-8999 - Fax: (770) 447-9070
WWW.WOLVERTON-ASSOC.COM

OHIO UTILITIES PROTECTION SERVICE
4740 Belmont Avenue Youngstown, Ohio 44505
1-800-362-2764
Call before you Dig
1-800-362-2764

1. THE SITEWORK FOR THIS PROJECT SHALL MEET OR EXCEED THE STANDARD SITEWORK SPECIFICATIONS
2. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

DEVELOPER-

DEVILLE-THF-MASSILLON
DEVELOPMENT L.L.C.
2127 INNERBELT BUSINESS CENTER DR.
SUITE 200
ST. LOUIS, MO. 63114
314-429-0900 PHONE

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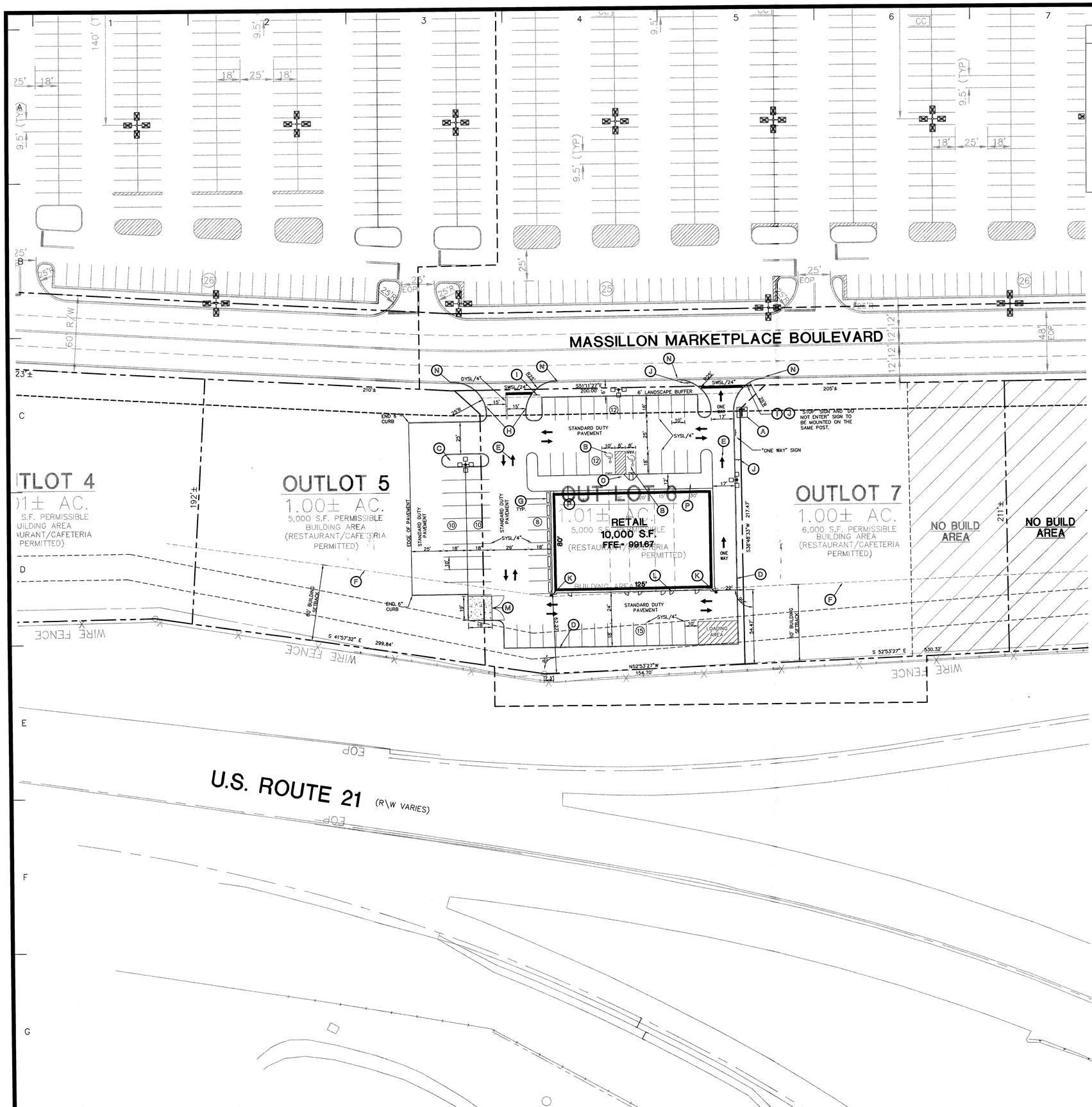
STATE OF OHIO
LAWRENCE J. WOLVERTON, JR.
E-53719
REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
STATE ROUTE #21 AND ERIE DRIVE
MASSILLON, OHIO

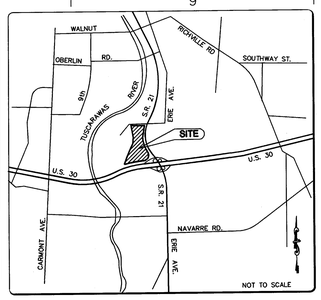
Project Developer
DEVILLE-THF-MASSILLON
DEVELOPMENT L.L.C.
2127 INNERBELT BUSINESS CENTER DR.
ST. LOUIS, MO 63114

SHEET NUMBER
C-0



SITE PLAN LEGEND

- PROPOSED BUILDING
- PROPOSED CURB AND GUTTER
- PROPOSED HEAVY DUTY CONCRETE PAVING
- PROPOSED HEAVY DUTY PAVING
- PROPOSED STANDARD DUTY PAVING
- (#) PARKING COUNT
- SIGN TYPE INDICATOR
- UNIVERSAL HANDICAP SYMBOL
- STANDARD DIRECTIONAL ARROW
- STANDARD STOP BAR



SITE PLAN KEYED NOTES

- (A) EXISTING CONCRETE ELECTRICAL TRANSFORMER PAD. CONTRACTOR TO COORDINATE WITH LOCAL POWER COMPANY FOR CONSTRUCTION DETAILS AND SPECIFICATIONS.
- (B) ACCESSIBLE PARKING SPACES, TYPICAL. SEE DETAIL SHEET FOR ACCESSIBLE PARKING SPACE LAYOUT SIZE, SIGN AND SYMBOL ("VAN"-INDICATES VAN ACCESSIBLE SPACE)
- (C) PROPOSED LANDSCAPE ISLAND
- (D) EXTRUDED CONCRETE CURB AND GUTTER, TYPICAL. (SEE DETAIL SHEET.)
- (E) PAINTED TRAFFIC FLOW ARROW, TYPICAL -SEE DETAIL SHEET
- (F) BUILDING SETBACKS PER CITY OF MASSILLON ZONING ORDINANCE
- (G) PROPOSED CONCRETE WHEELSTOP REFER TO DETAIL SHEET
- (H) OMITTED
- (I) R1-1, "STOP" SIGN. (SEE DETAIL SHEET.)
- (J) DO NOT ENTER SIGN (SEE DETAIL SHEET)
- (K) 6"ø STEEL GUARD POST/PIPE BOLLARD, TYPICAL. SEE DETAIL SHEET.
- (L) EXIT PORCH/EGRESS DOOR SEE ARCHITECTURAL PLANS FOR EXACT SIZE, NUMBER AND LOCATION FOR STOOPS, STAIRS AND/OR RAMPS THAT MAYBE REQUIRED AT DOOR DEPENDING ON GRADE. REFER TO ARCHITECTURAL AND CIVIL PLANS TO SEE IF APPLICABLE.
- (M) PROPOSED CONCRETE DUMPSTER PAD WITH SCREEN FENCING. SEE DETAILS FOR PAVEMENT SECTION.
- (N) CONTRACTOR TO MATCH EXISTING CURB IN GRADE IN ALIGNMENT
- (O) PROPOSED ACCESSIBLE RAMP. REFER TO ARCH. PLANS FOR DETAILS.
- (P) 12' SIDEWALK. REFER TO ARCH. PLANS FOR DETAILS.

SHOPS SITE ANALYSIS

SHOPS	10,000 S.F.
PARKING	59 SPACES
RATIO	5.90/1,000 S.F.

TOTAL SITE AREA = 1.01±AC.

SITE PLAN NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH CITY OF MASSILLON REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
3. THE SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE STANDARD SITE WORK SPECIFICATIONS".
4. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
5. ALL ISLANDS WITH CURB & GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE TYPE "B" CURB & GUTTER. ALL REMAINING ISLANDS ARE TO BE STRIPED AS SHOWN.
6. ALL CURBED OR STRIPED RADII ARE TO BE 5' UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS AND RADII ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
8. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED FOR WIDENING OF ALL ROADWAYS. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
10. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM DESIGN PLANS BY WOLVERTON & ASSOCIATES,INC, DATED OCTOBER 1999.
11. TOTAL LAND AREA IS 1.01 ± ACRES.

PAINT STRIPING LEGEND

SWSL/4" – SINGLE WHITE SOLID LINE / 4" WIDE
DYSL/4" – DOUBLE YELLOW SOLID LINE / 4" WIDE EACH
SYSL/4" – SINGLE YELLOW SOLID LINE / 4" WIDE
SWDL/4" – SINGLE WHITE DASHED LINE / 4" WIDE
SWSL/24" – SINGLE WHITE SOLID LINE / 24" WIDE
SWSL/8" – SINGLE WHITE SOLID LINE / 8" WIDE
SWSL/6" – SINGLE WHITE SOLID LINE / 6" WIDE

SITE PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Wolverton & Associates, Inc.
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Consulting Engineers & Land Surveyors
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STATE OF OHIO
TIMOTHY SCOTT WOLVERTON, JR.
E-53719
REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
MASSILLON MARKETPLACE BOULEVARD
MASSILLON, OHIO

REVISIONS	BY
OHIO EDISON COMMENT 4-3-03	TS

DRAWN BY	TS
CHECKED BY	TS
DATE	1/27/03
SCALE	1"= 30'
JOB No.	02-271
SHEET NUMBER	C-1
OF	SHEETS

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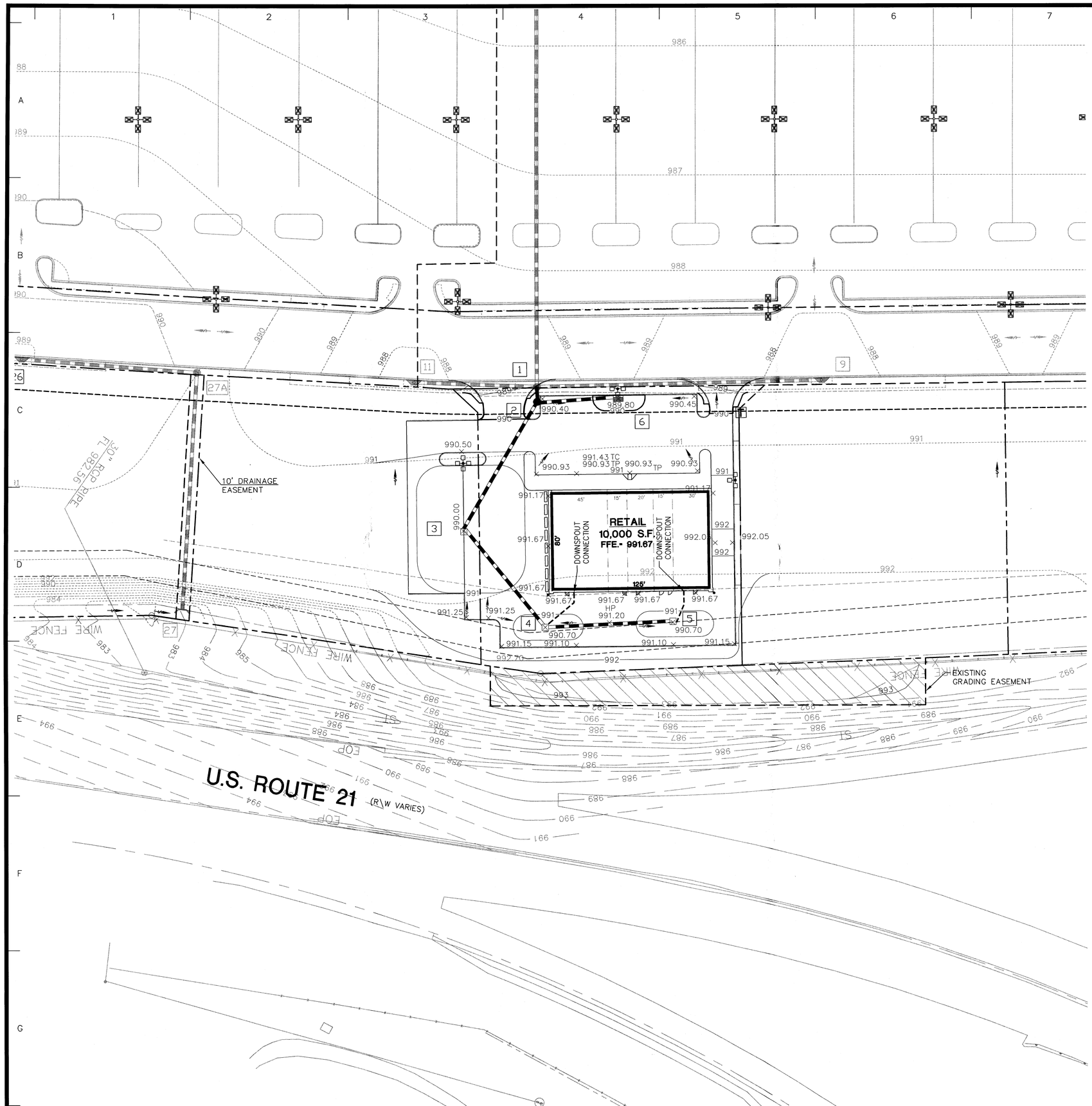

SITE GRADING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED. SLOPES STEEPER THAN 3:1 SHALL (AFTER TOPSOIL, SEEDING, AND MULCHING) BE COVERED WITH CUREX BLANKETS BY AMERICAN EXCELSOR COMPANY OR EQUAL.
4. ALL DISTURBED AREAS NOT OTHERWISE COVERED BY BUILDINGS OR PAVEMENT SHALL RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
5. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
6. ALL CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
7. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
8. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
9. STORM PIPE TO BE AS FOLLOWS:
10. Corrugated Polyethylene Pipe (CPP) Smooth Interior: AASHTO Designation M252 and M294, maximum diameter of 48-inches. Only permitted when specifically indicated on Construction Drawings. Pipe shall be installed in accordance with pipe manufacturer's installation Guidelines for Culvert Storm Drainage Applications.
    1. Acceptable manufacturers: Advanced Drainage Systems, Inc. "ADS N-12", HANCOR, INC. "HI-Q", or approved equal.

DRAINAGE SCHEDULE

STRUCTURE NUMBER	STRUCTURE TYPE	TOP CASTING	INVERT IN	ELEVATION OUT	PIPE LENGTH (FEET)	PIPE TYPE	PERCENT SLOPE
1	EX. JUNCTION BOX	990.00	985.56 (2)	980.86 (EX.)	–	–	–
1–2	–	–	–	–	12'	18" CPP	0.50%
2	JUNCTION BOX	991.00	985.72 (3)	985.62	–	–	–
2–3	–	–	986.48 (6)	–	114'	18" CPP	0.50%
3	DROP INLET	990.00	986.39	986.29	–	–	–
3–4	–	–	–	–	100'	18" CPP	0.51%
4	DROP INLET	990.70	987.00	986.90	–	–	–
4–5	–	–	–	–	98'	18" CPP	0.51%
5	DROP INLET	990.70	–	987.50	–	–	–
–	–	–	–	–	–	–	–
6	CURB INLET	989.80	–	986.80	–	–	–
6–2	–	–	–	–	64'	18" CPP	0.50%

GRADING/DRAINAGE PLAN LEGEND

- STORM SEWER PIPING
- JUNCTION BOX STRUCTURE
- DRAINAGE STRUCTURE INDICATOR
- DOUBLE WING CATCH BASIN
- DROP INLET
- SINGLE WING CATCH BASIN
- SLOPE ARROW
- TC TOP OF CONCRETE
- G FINISHED PAVEMENT GRADE
- CURB INLET

OHIO UTILITIES PROTECTION SERVICE
8140 Belmont Avenue Youngstown, Ohio 44505
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GRADING PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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Consulting Engineers & Land Surveyors
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STATE OF OHIO — TIMOTHY J. WOLVERTON, JR. — E-53719 — REGISTERED PROFESSIONAL ENGINEER

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MASSILLON MARKETPLACE BOULEVARD
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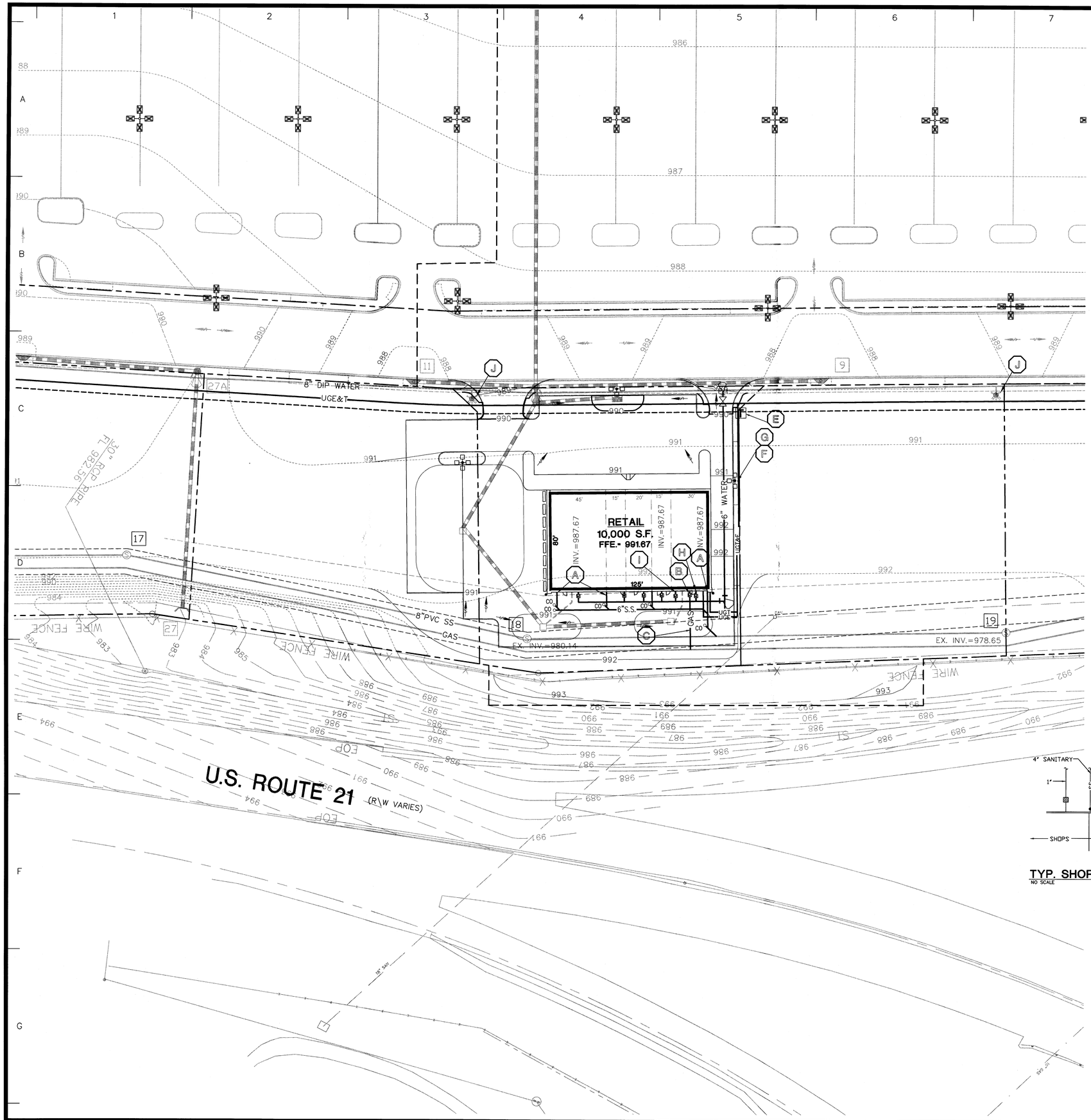


UTILITY LEGEND

(A) 6" SANITARY SEWER LATERAL AT MINIMUM 1.0% SLOPE. SEE INVERTS FOR ACTUAL SLOPE. COORDINATE WITH ARCHITECTURAL PLANS.

(B) GAS ENTRY WITH GAS METER. CONTRACTOR RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AT METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METERS.

(C) CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH NORTHEAST OHIO GAS COMPANY REGARDING THE SIZE AND INSTALLATION OF GAS SERVICE LINE (TYPICAL). THE CONTRACTOR IN CONJUNCTION WITH GAS COMPANY SHALL DETERMINE THE AMOUNT OF GAS LINE THE CONTRACTOR MAY BE REQUIRED TO PROVIDE OUTSIDE THE GAS COMPANY ALLOWANCE. GAS COMPANY WILL INSTALL LINE, VALVES, METERS, ETC. CONTRACTOR WILL BE RESPONSIBLE FOR TRENCHING, BEDDING, AND BACKFILL OF TRENCH AS REQUIRED BY GAS COMPANY. CONTRACTOR IS RESPONSIBLE FOR ALL COST INVOLVED.

(D) UNDERGROUND ELECTRIC SERVICE FROM POLE TO BUILDING, CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BEDDING, CONDUIT, CABLES, PULL WIRES, SECONDARY CONDUCTORS, BACKFILL, ETC., WHICH MAY BE REQUIRED BY ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH POWER COMPANIES, THE CONTRACTOR IN CONJUNCTION WITH THE UTILITY COMPANIES SHALL DETERMINE THE AMOUNT OF UTILITY LINE HE IS TO PROVIDE OUTSIDE THE UTILITY COMPANY'S ALLOWANCE.

(E) EXISTING LOCATION OF TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH POWER COMPANY PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD, CONDUIT AND PIPE BOLLARDS AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.

(F) UNDERGROUND TELEPHONE FROM POLE TO BUILDING TO BE EXTENDED BY TELEPHONE COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRENCHING, BEDDING, PULL WIRES, BACKFILL, CONDUIT, ETC., WHICH MAY BE REQUIRED BY TELEPHONE COMPANY. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR SAID WORK. PROVIDE A MINIMUM OF (2) 3" CONDUITS UNDER PAVED AREAS.

(G) CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES FOR THE INSTALLATION OF UNDERGROUND ELECTRIC AND TELEPHONE LINES TYPICAL. CONTRACTOR SHALL COORDINATE THE TYING OF INDIVIDUAL METERS WITH THE ELECTRIC COMPANY. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES TO INSURE PROPER SEPARATION BETWEEN OVERHEAD LINES AND LIGHT POLES. SEE NOTE D, E, & F FOR ADDITIONAL NOTES PERTAINING TO ELECTRIC AND TELEPHONE LINES.

(H) DOMESTIC WATERLINE ENTRY WITH METER PER LOCAL WATER COMPANY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE IN SIDE BLDG. SUCH AS BACKFLOW PREVENTION DEVICES, GATE VALVES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER COMPANY.

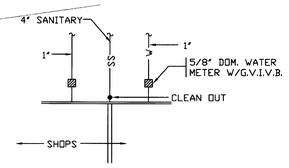
(I) SPRINKLER ENTRY. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE SPRINKLER LINE SUCH AS, BUT NOT LIMITED TO, A SINGLE DETECTOR CHECK BACKFLOW PREVENTION DEVICE, IN SERIES WITH A CHECK VALVE, GATE VALVES, OR DOUBLE DETECTOR CHECK, ETC., MEETING WATER COMPANY SPECIFICATIONS. BACKFLOW PREVENTOR TO BE LOCATED INSIDE THE BUILDING. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS.

(J) PROPOSED FIRE HYDRANT AND ASSEMBLY, TYPICAL AS INDICATED. CONTRACTOR TO PROVIDE PIPE BOLLARD PROTECTION WHEN SHOWN.

UTILITY PLAN NOTES

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY (WATER, SEWER, ETC.) AUTHORITIES A MINIMUM OF 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION WORK IN THE AFFECTED AREAS.
3. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   (a) 8",10" & 18" PVC SDR35 PER ASTM D 3034, FOR PIPES LESS THAN 12' DEEP.
   (b) 8",10" & 18" PVC SDR26 PER ASTM D 3034, FOR PIPES MORE THAN 12' DEEP.
   (c) 6" PVC SCHEDULE 40 SDR35.
   (d) DUCTILE IRON PIPE PER ANSI A21.51 – 1976 (AWWA C151–76) AND (AWWA C111) WITH DUCTILE IRON FITTINGS.

   PIPE FITTINGS:
   PVC – SHALL MEET EXTRA STRENGTH MINIMUM OF SDR–35. FITTINGS 6" AND SMALLER SHALL BE PVC WITH PUSH–ON JOINT.
4. PUBLIC WATER LINES SHALL BE AS FOLLOWS:
   (a) 6", 8" OR 12" LINES SHALL BE DUCTILE IRON PIPE PER ANSI/ AWWA C151/A21.51 DUCTILE IRON PIPE SHALL BE COATED OUTSIDE WITH A BITUMOUS COATING IN ACCORDANCE WITH WITH ANSI/AWWA/ C151/A21.51. THE PIPE INTERIOR SHALL BE CEMENT MORTAR LINED AND SEAL COATED IN COMPLIANCE WITH THE LATEST REVISION OF ANSI/AWWA C104/A21.4. THE CEMENT MORTAR LINING SHALL BE DOUBLE THICKNESS.
   (b) WATER SERVICE LINES 2" AND SMALLER SHALL BE COPPER PIPE TYPE K MEETING THE REQUIREMENTS OF ASTM STANDARD B88.
5. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
6. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" APART (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
7. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'–6" COVER ON ALL WATERLINES.
8. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES (STARK COUNTY TO BE NOTIFIED), SANITARY LINES, STORM LINES, AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING THE REQUIREMENTS OF ANS A21.10 OR ANSI 21.11(AWWA C–151) (CLASS 50).
   WHEN A STORM PIPE CROSSES OVER A SANITARY SEWER AND THE VERTICAL CLEARANCE IS LESS THAN TWO (2) FEET, THE SANITARY SEWER MUST BE ENCASED IN CONCRETE THROUGH THE CROSSING AND FOR TEN (10) LINEAL FEET EACH SIDE OF THE CROSSING UNLESS OTHERWISE DIRECTED BY THE DISTRICT. SEWERS SHALL BE DEEP ENOUGH TO RECEIVE FLOW FROM BASEMENTS AND TO PREVENT FREEZING.
9. UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
10. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
11. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
12. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE–IN OF ALL UTILITIES AND SEWER LINES.
13. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS INSTALLATION, TESTING AND CLEANING OF THE WATER AND SEWER LINES.
14. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
15. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
16. IN ACCORDANCE WITH TEN STATE STANDARDS, THE CITY OF MASSILLON AGREES THAT SANITARY SEWER RUNS OF MORE THAN 400 FEET ARE ACCEPTABLE AND MAINTAINABLE.
17. SANITARY SEWER TAP PERMIT IS REQUIRED. CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR PERMIT AND INSPECTION REQUIREMENTS.
18. A GREASE TRAP WILL BE REQUIRED FOR RESTAURANT OPERATIONS. CONTACT CITY OF MASSILLON HEALTH DEPARTMENT FOR PERMIT AND INSPECTION REQUIREMENTS.



TYP. SHOP UTILITY LAYOUT
NO SCALE CU13

UTILITY COMPANY APPROVAL BY:
NAME (PRINT): _____
COMPNAY: _____
SIGNATURE AND DATE: _____

OHIO UTILITIES PROTECTION SERVICE
4740 Belmont Avenue Youngstown, Ohio 44505
1 800 362 2764
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VICINITY

UTILITY PLAN

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

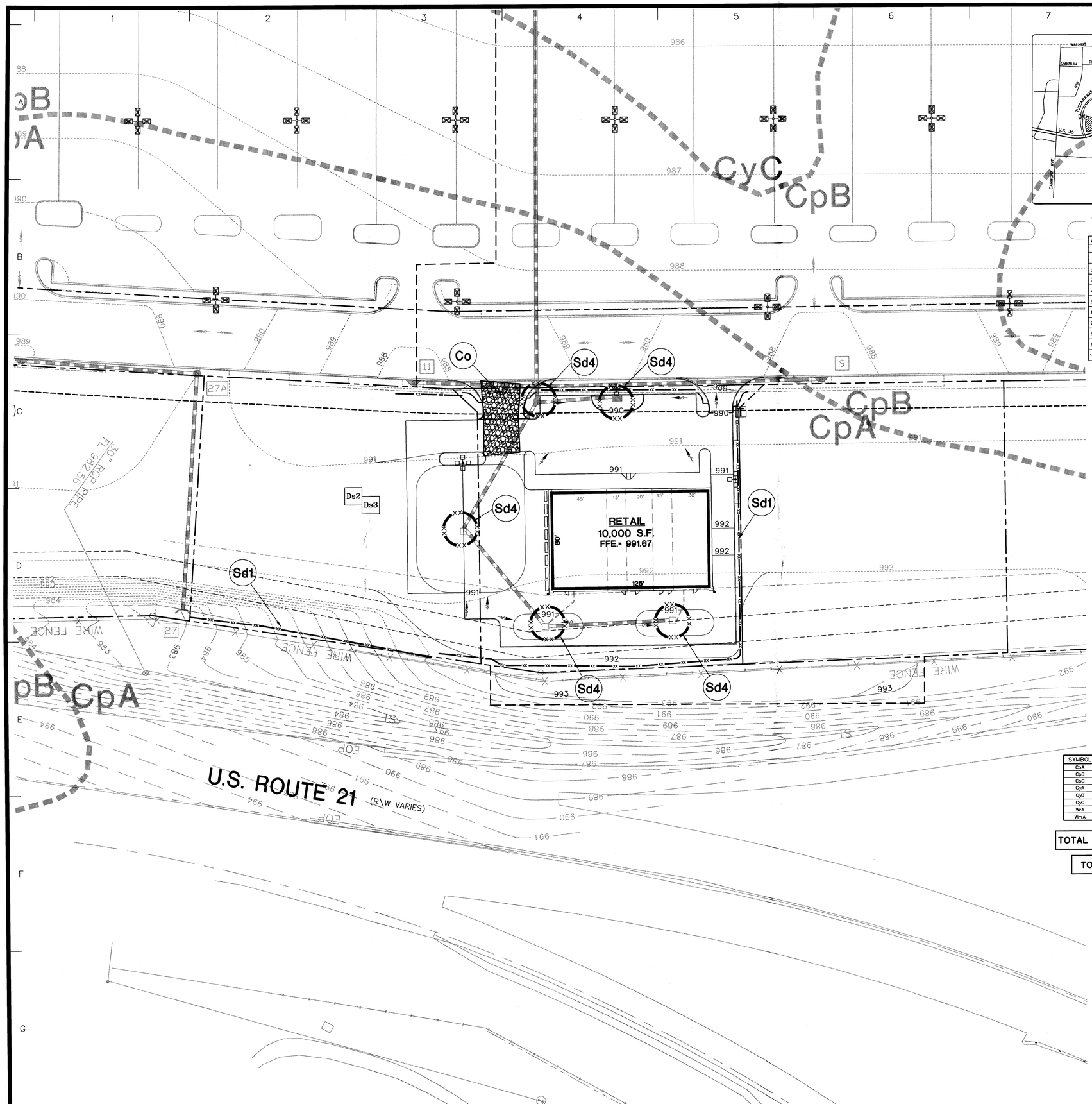
Wolverton & Associates
INCORPORATED
Consulting Engineers & Land Surveyors
5300 Oakbrook Parkway · Suite 150 · Norcross, Georgia 30093
Phone: (770) 447-9999 · Fax: (770) 447-9070
WWW.WOLVERTON-ASSOC.COM

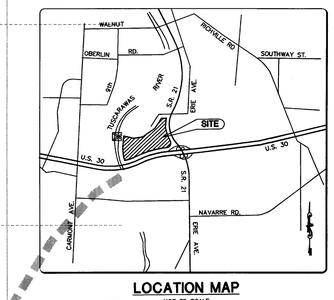
STATE OF OHIO
JOHN L. WOLVERTON, JR.
E-53719
REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
MASSILLON MARKETPLACE BOULEVARD
MASSILLON, OHIO

REVISIONS	BY
OHIO EDISON COMMENT 4–3–03	TS

DRAWN BY	TS
CHECKED BY	TS
DATE:	1/27/03
SCALE:	1"= 30'
JOB No.	02-271
SHEET NUMBER	C-3
OF	SHEETS





LOCATION MAP

NOT TO SCALE

CE-06

ANTICIPATED ACTIVITY SCHEDULE

	ACTIVITY	FEB	MAR	APR	MAY
1	INSTALL SEDIMENT CONTROLS				
2	CLEARING AND GRUBBING				
3	STORM DRAINAGE INSTALLATION				
4	SANITARY SEWER INSTALLATION				
5	GRASS (TEMP) & (PERM)				
6	UTILITY INSTALLATION				
7	MAINTAIN EROSION CONTROL				
8	PAVING				
9	FINAL LANDSCAPING				
10	CLEAN UP				

NOTE: THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION OUTLET		(label)	A crushed stone pad over a geotextile base located at the construction exit to provide a place for removing mud from tires thereby protecting public streets.
Di	DIVERSION			An Earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
Sd1	SILT FENCE		type (indicate type)	A barrier utilizing a geotextile fence and existing topography to cause sediment deposition.
Sd2	SEDIMENT TRAP TEMPORARY (FOR DROP INLETS)			A barrier consisting of a geotextile fabric surrounding a storm drain inlet. It reduces the rate at which sediment laden water may enter an inlet thereby causing ponding and settling of sediment.
Sd3	SEDIMENT BASIN TEMPORARY			A basin created by excavation or a dam constructed across a drainage way where runoff is temporarily stored allowing the bulk of the sediment to drop out. The basin is usually temporary but may be designed as a permanent pond or retention device.
Sd4	SEDIMENT TRAP TEMPORARY (FOR CURB INLETS)			A barrier consisting of a geotextile fabric surrounding a storm drain inlet. It reduces the rate at which sediment laden water may enter an inlet thereby causing ponding and settling of sediment.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		Bf	An undisturbed natural "green belt" separating the natural ground from the land disturbing activity adjacent and bordering streams. It serves to reduce water velocity and remove some sediment. It is also at times a noise or vision pollution barrier.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING)		Ds3	Establishing permanent vegetative cover such as trees, shrubs, vines, sod, grasses or legumes on disturbed areas.

SEDIMENT AND EROSION CONTROL NOTES

1. CONTRACTOR IS TO ADHERE TO OHIO EPA REGULATIONS, AND THE OHIO MANUAL ON EROSION AND SEDIMENT CONTROL.
2. SEDIMENT AND EROSION CONTROL FACILITIES, STORM DRAINAGE FACILITIES AND RETENTION BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
3. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF 0.5" OR GREATER RAINFALL.
4. SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE AND UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
5. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED AND RIPRAP SHALL BE PLACED AS REQUIRED TO CONTROL EROSION.
6. SILT FENCES SHALL BE LOCATED ON SITE TO PREVENT SEDIMENT AND EROSION FROM LEAVING PROPERTY LIMITS.
7. ADDITIONAL EROSION CONTROL DEVICES SHALL BE USED AS REQUIRED.
8. SILT FENCE SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF TOP OF SILT FENCE.
9. MAXIMUM EMBANKMENT SLOPES TO BE AS FOLLOWS: CUT AREAS – 2 : 1, FILL AREAS – 2 : 1. 3 : 1 SLOPES ARE PREFERED IN ALL CASES.
10. DURING CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE, RETENTION PONDS AND RETENTION POND OUTLET STRUCTURES SHALL BE CLEANED OF ALL DEBRIS AND EXCESS SEDIMENT. BOTTOM OF PONDS SHALL BE BROUGHT TO ELEVATION AND SHAPE AS SHOWN ON SITE GRADING PLAN.
11. ALL GRADED AREAS SHALL BE STABILIZED IMMEDIATELY WITH A TEMPORARY FAST-GROWING COVER AND/OR MULCH. SEE SEEDING AND MULCHING SCHEDULE.

MULCHING SCHEDULE Ds1

SPECIES (MIXTURE OF)	RATE/ACRE
STRAW	2 TONS
HYDRO SEEDERS	2,000 LBS.
WOOD CHIPS	6 TONS

*OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

TEMPORARY SEEDING SCHEDULE Ds2

SPECIES (MIXTURE OF)	RATE/ACRE	PLANTING DATES
TALL FESCUE ANNUAL RYE GRASS	40 LBS 40 LBS	MAR 1–AUG 15
TALL FESCUE ANNUAL RYE GRASS	40 LBS 40 LBS	AUG 16–NOV 1

PERMANENT SEEDING SCHEDULE Ds3

SPECIES	RATE/ACRE	PLANTING DATES
TALL FESCUE	40 LBS	AUG 1–SEPT 30
TALL FESCUE	60 LBS*	OCT 1–MAR 15

*FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE. ALL SEEDING IN THIS TIME PERIOD SHALL BE MULCHED.

SOIL LEGEND

SYMBOL	NAME
CpA	Chili silt loam, 0 to 2 percent slopes.
CpB	Chili silt loam, 2 to 6 percent slopes.
CpC	Chili silt loam, 6 to 12 percent slopes.
CyA	Conotton gravelly loam, 0 to 2 percent slopes.
CyB	Conotton gravelly loam, 2 to 6 percent slopes.
CyC	Conotton gravelly loam, 6 to 12 percent slopes.
WrA	Wheeling silt loam, 0 to 2 percent slopes.
WmA	Wheeling loam, 0 to 2 percent slopes.

TOTAL DISTURBED AREA - 1.70 ± ACRES

TOTAL SITE AREA - 1.01 ± ACRES

OHIO UTILITIES PROTECTION SERVICE
4740 Belmont Avenue Youngstown, Ohio 44505
1-800-362-2764
Call before you Dig
1-800-362-2764

EROSION CONTROL PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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REVISIONS	BY
OHIO EDISON COMMENT 4-3-03	TS

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SCALE: 1"= 30'
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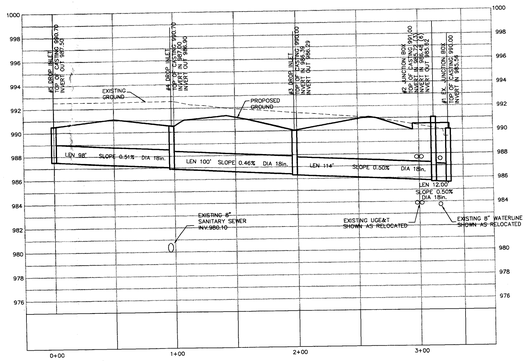
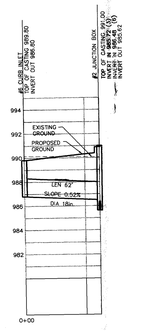
SHEET NUMBER C-4
OF SHEETS



STRUCTURES #1 - #5

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 5'



STRUCTURES #2 - #6

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 5'

** NOTE **
CONTRACTOR IS RESPONSIBLE FOR COMPARING THE STORM AND SEWER CHARTS WITH THE PROFILES FOR THE STORM & SEWER LINES AND INFORMING THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE
4748 Belmont Avenue Youngstown, Ohio 44505
1-800-362-2764
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1-800-362-2764

VERTICAL SCALE
5 0 2.5 5
(IN FEET)
1 inch = 5 ft.

HORIZONTAL SCALE
50 0 25 50
(IN FEET)
1 inch = 50 ft.

STORM SEWER PROFILES

Wolverton & Associates
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Consulting Engineers & Land Surveyors
5300 Oakbrook Parkway, Suite 150, Norcross, Georgia 30093
Phone: (770) 447-8999 Fax: (770) 447-9070
WWW.WOLVERTON-ASSOC.COM

STATE OF OHIO
CHARLES V. WOLVERTON, JR.
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REVISIONS	BY

DRAWN BY TS
CHECKED BY TS
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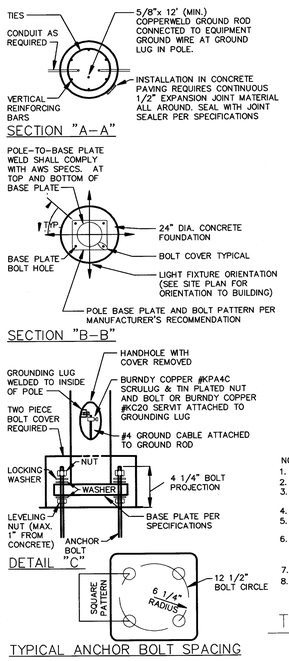
SCALE: AS NOTED
JOB No. 02-271
SHEET NUMBER
ST-1
OF SHEETS

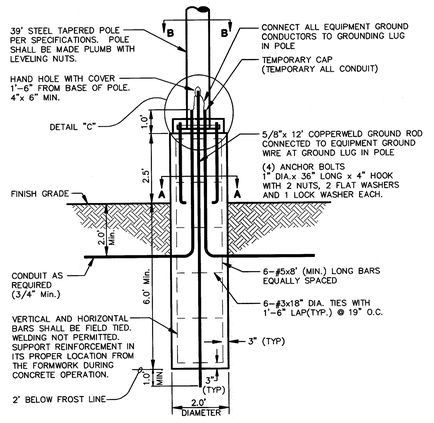


SECTION "A–A"

SECTION "B–B"

DETAIL "C"

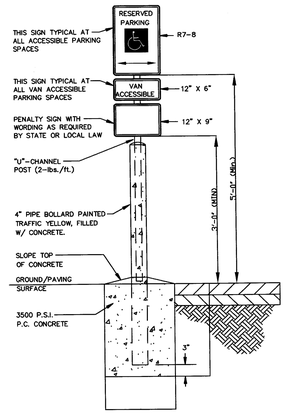
TYPICAL ANCHOR BOLT SPACING



NOTES:
1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
7. EXPOSED CONCRETE SHALL BE PAINTED TRAFFIC YELLOW.
8. DETAIL FOR 39' POLE WITH MAX. FIXTURE EPA 4.6 SQ.FT.

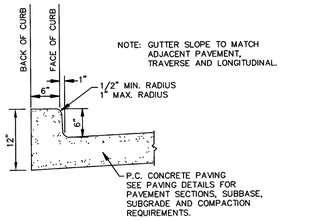
TYPICAL LIGHTING POLE BASE DETAIL 13A

N.T.S.



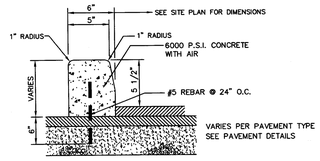
ACCESSIBLE PARKING SIGN

DTHCSIGN N.T.S.



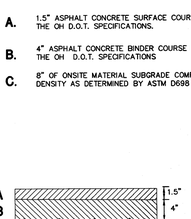
TYPE 'B' INTEGRAL CURB AND GUTTER

DTCURBB N.T.S.



TYPE 'B' CONCRETE (EXTRUDED) CURB (ON-SITE)

N.T.S. CS57



A. 1.5" ASPHALT CONCRETE SURFACE COURSE PER ITEM 404 OF THE OH D.O.T. SPECIFICATIONS.

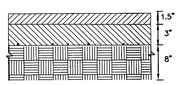
B. 4" ASPHALT CONCRETE BINDER COURSE PER ITEM 301 OF THE OH D.O.T. SPECIFICATIONS

C. 8" OF ONSITE MATERIAL SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 SEE NOTE 3.

NOTES:
1. ALL PAVING WORK INCLUDING ASPHALT MATERIAL AND PAVING OPERATIONS SHALL BE PER THE STATE OF MO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS (JAN. 1995 EDITION).
2. PAVEMENT DESIGN IS BASED ON A C.B.R. VALUE OF 5.5.

HEAVY-DUTY ASPHALTIC CONCRETE PAVEMENT

NO SCALE



A. 1.5" ASPHALT CONCRETE SURFACE COURSE PER ITEM 404 OF THE OH D.O.T. SPECIFICATIONS.

B. 3" ASPHALT CONCRETE BINDER COURSE PER ITEM 301 OF THE OH D.O.T. SPECIFICATIONS

C. 8" OF ONSITE MATERIAL SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 SEE NOTE 3.

NOTES:
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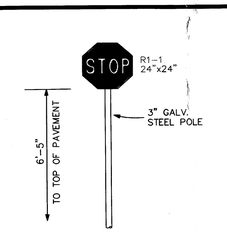
2. PAVEMENT DESIGN IS BASED ON A C.B.R. VALUE OF 5.5

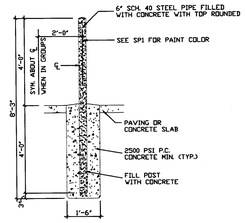
STANDARD DUTY ASPHALTIC CONCRETE PAVEMENT

NO SCALE



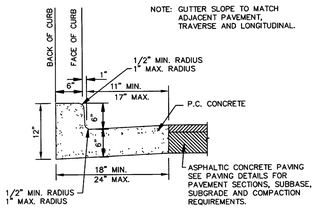
STOP SIGN

N.T.S. CS44



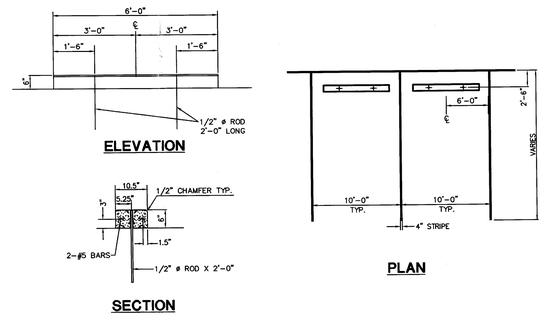
BOLLARD DETAIL

NO SCALE



TYPE 'A' CONCRETE CURB AND GUTTER

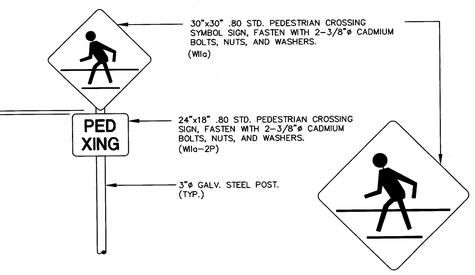
DTCURBA N.T.S.



(IN LOCATIONS ONLY AS SPECIFICALLY CALLED OUT ON SITE PLAN)

BUMPER BLOCK DETAIL @ 90 ° PARKING

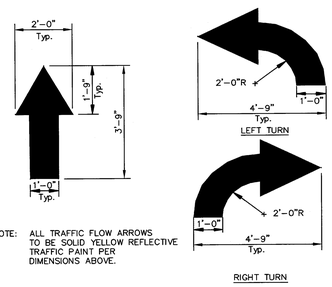
N.T.S. CS03



NOTE: PEDESTRIAN CROSSING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PEDESTRIAN CROSSING SIGN DETAIL

NO SCALE CS26



NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID YELLOW REFLECTIVE TRAFFIC PAINT PER DIMENSIONS ABOVE.

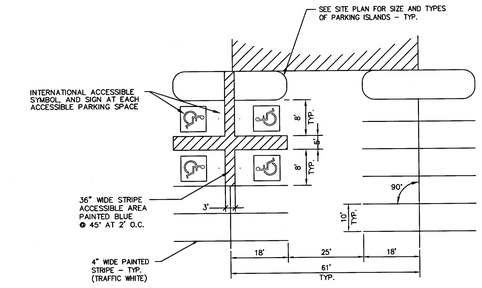
TRAFFIC FLOW ARROW

N.T.S. DTPKFLOW

CATALOG NUMBER: MSVA1000H–BWxx
NUMBER OF LUMINAIRES: 4
Mounting Height= 42 feet. 4 units per pole.
From Pole to Photometric Center= 2 feet.
IES Candela File: HP07726.IES
Initial Lumens per Lamp= 110000.
Light Loss Factor (LLF) = 0.75
Number Poles this type = 1

DTPKP

CATALOG NUMBER: MSVA1000H–BP–xx
NUMBER OF LUMINAIRES: 12
Mounting Height= 42 feet. 3 units per pole.
From Pole to Photometric Center= 2 feet.
IES Candela File: HP07892.IES
Initial Lumens per Lamp= 110000.
Light Loss Factor (LLF) = 0.72
Number Poles this type = 4



90° PARKING DETAIL

N.T.S. CS20

Wolverton & Associates
INCORPORATED
Consulting Engineers & Land Surveyors
3300 Oakbrook Parkway - Suite 150 - Norcross, Georgia 30093
Phone: (770) 447-9999 - Fax: (770) 447-9070
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STATE OF OHIO — JOSEPH — WOLVERTON, JR. — E-53719 — REGISTERED PROFESSIONAL ENGINEER

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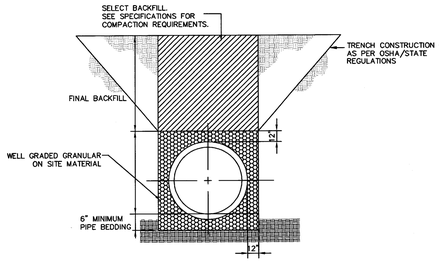
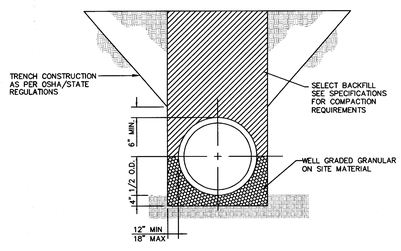
02–271DET.DWG



SANITARY SEWER BEDDING

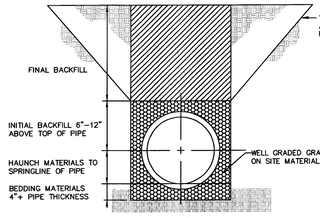
NO SCALE



(FOR RCP & STANDARD CMP ONLY)

STORM DRAIN BEDDING

NO SCALE CG12



NOTES:

1. BEDDING MATERIALS SHALL BE CLASS I, II, OR III MATERIALS AS DEFINED IN TABLE 1, ASTM D-2321. INSTALLATION OF THESE MATERIALS SHALL BE AS PER TABLE 2.
2. HAUNCH MATERIALS SHALL BE CLASS I, II, OR III PER D-2321, TABLE 2.
3. INITIAL BACKFILL MATERIALS SHALL BE CLASS I, II, OR III MATERIALS AS REQUIRED ABOVE, RESTRICTED AS PER ASTM D-2321, TABLE 2.
4. MINIMUM TRENCH WIDTHS (AS REQUIRED BY ASTM D-2321), ARE AS FOLLOWS:

WIDTH, CPP	MIN. TRENCH
8"	25"
10"	27"
12"	30"
15"	34"
18"	38"
24"	48"
30"	66"
36"	78"
42"	83"
48"	89"

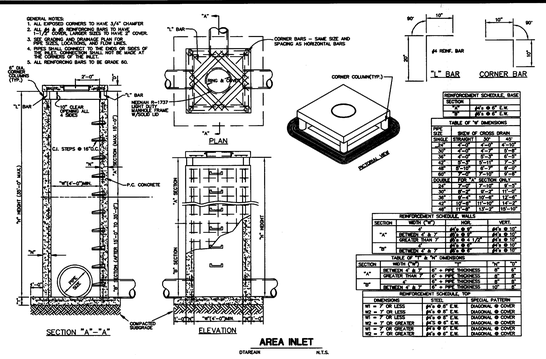
A LESSER TRENCH WIDTH WILL BE PERMITTED ONLY WHERE IT IS DETERMINED THE CONTRACTOR CAN UTILIZE EQUIPMENT CAPABLE OF MEETING THE REQUIRED INSTALLATION DENSITIES.

5. WHERE THE TRENCH BOTTOM IS UNSTABLE, CONTRACTOR SHALL EXCAVATE TO A DEPTH AS REQUIRED BY THE ENGINEER AND REPLACE AS AN ALTERNATE, TRENCH BOTTOM MAY BE STABALIZED USING A GEOFABRIC.

(FOR CPP & SPIRAL RIB TYPE 1E ONLY)

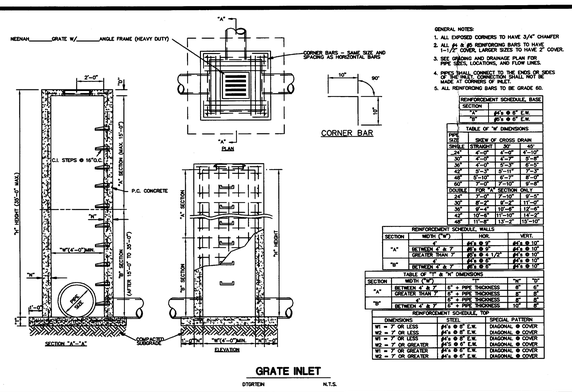
STORM DRAIN BEDDING

NO SCALE CG12



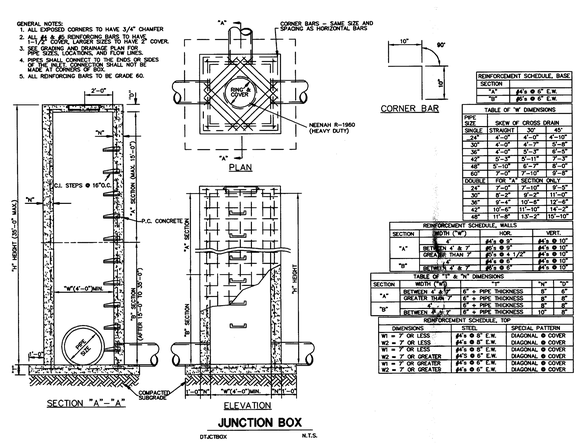
AREA INLET

DTAREAIN N.T.S.



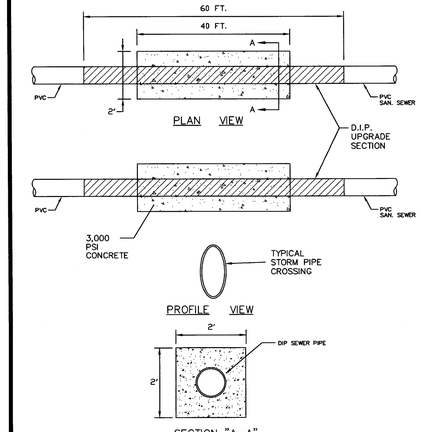
GRATE INLET

DTGRTEIN N.T.S.



JUNCTION BOX

DTJCTBOX N.T.S.

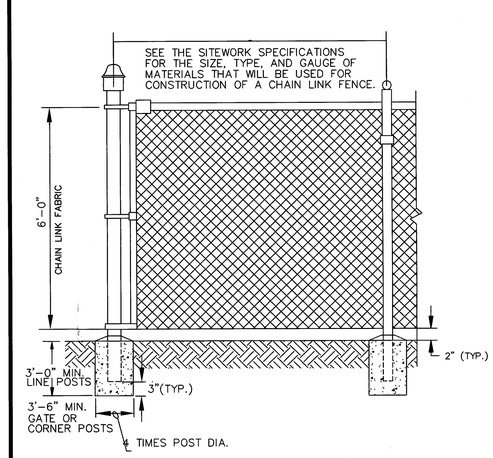


NOTES:

1. ALL CONCRETE TO BE 3,000 PSI.
2. CONCRETE ENCASEMENTS TO BE PROVIDED AT SANITARY/STORM SEWER CROSSINGS LESS THAN 3.0 VERTICAL FEET, WHETHER SANITARY IS ABOVE OR BELOW STORM.

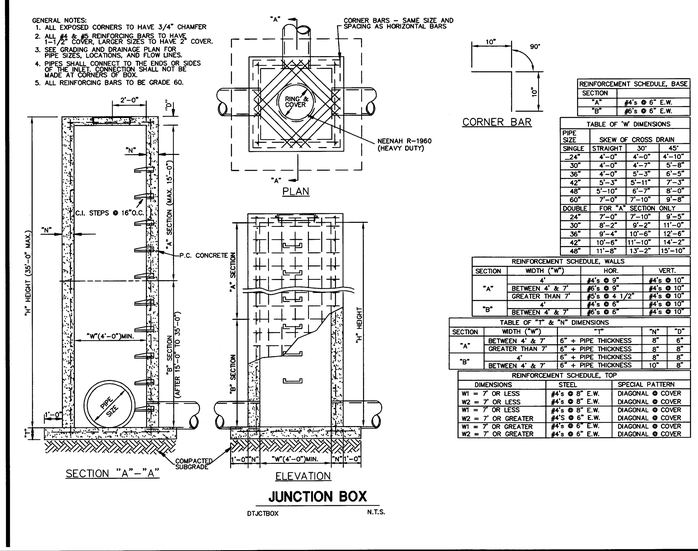
SANITARY SEWER CONCRETE ENCASEMENT

N.T.S.



CHAIN LINK FENCE

DTCHFENC N.T.S.



JUNCTION BOX

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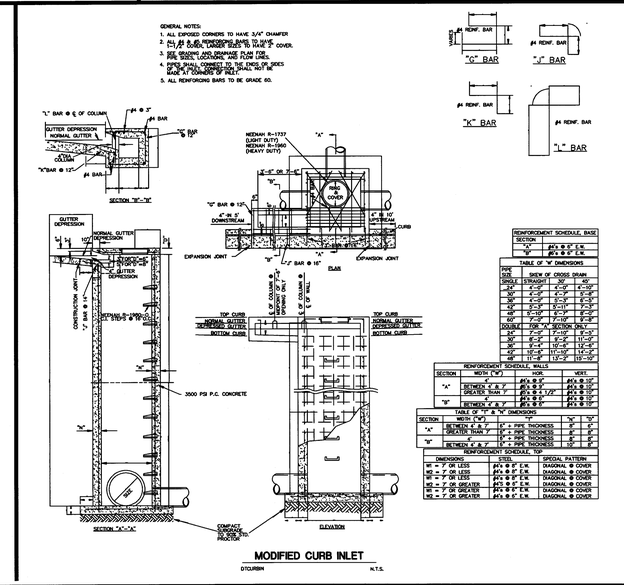

MODIFIED CURB INLET

DTCURBIN N.T.S.

Wolverton & Associates
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Phone: (770) 447-8999 - Fax: (770) 447-9070
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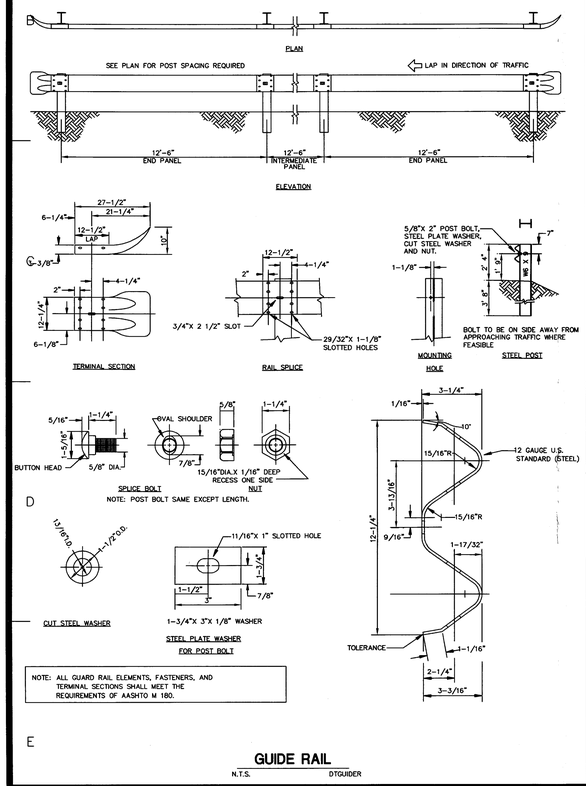
STATE OF GEORGIA
WILLIAM T. WOLVERTON, JR.
E-53715
REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
MASSILLON MARKETPLACE BOULEVARD
MASSILLON, OHIO

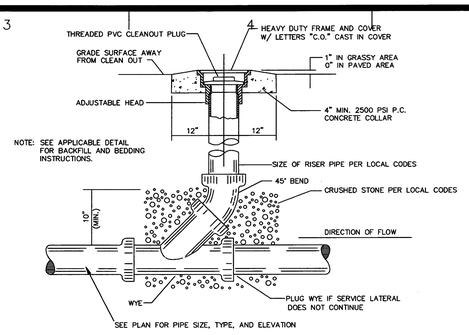
REVISIONS	BY

DRAWN BY	TS
CHECKED BY	TS
DATE:	1/27/03
SCALE:	AS NOTED
JOB No.	02-271
SHEET NUMBER	D-2
OF	SHEETS



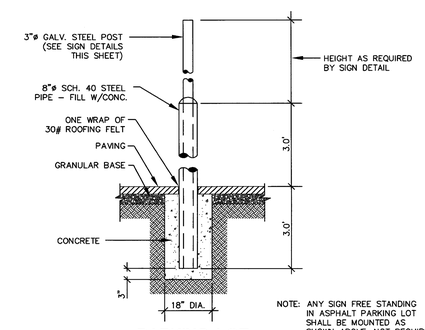
GUIDE RAIL

N.T.S. DTGUIDER



SANITARY SEWER CLEAN-OUT

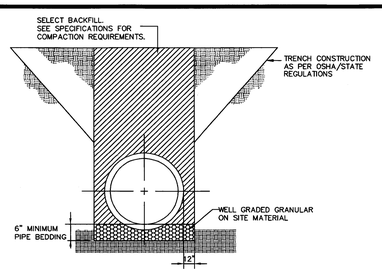
N.T.S. DTSSCOUT



NOTE: ANY SIGN FREE STANDING IN ASPHALT PARKING LOT SHALL BE MOUNTED AS SHOWN ABOVE. NOT REQUIRED FOR SIGNS LOCATED WITHIN CURB & GUTTER ISLANDS.

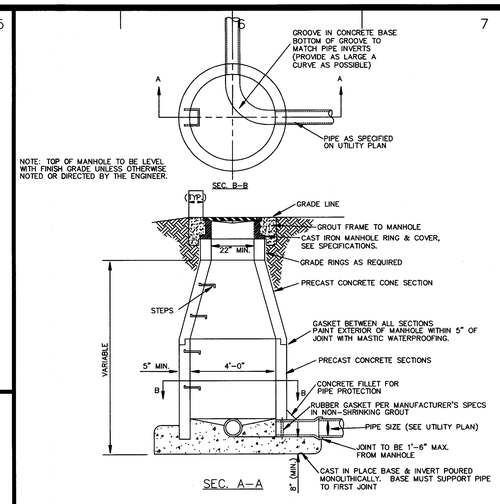
PARKING LOT SIGN POST DETAIL

NO SCALE CS22



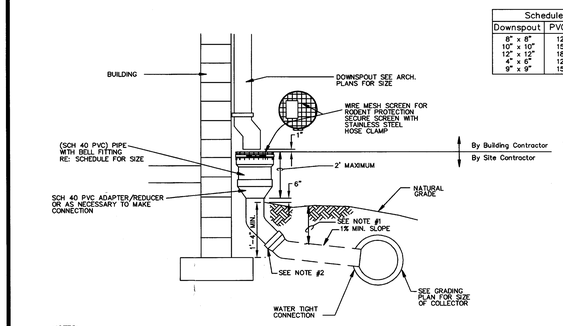
WATERLINE BEDDING DETAIL

NO SCALE



PRE-CAST SANITARY SEWER MANHOLE

DTMANPRE N.T.S.



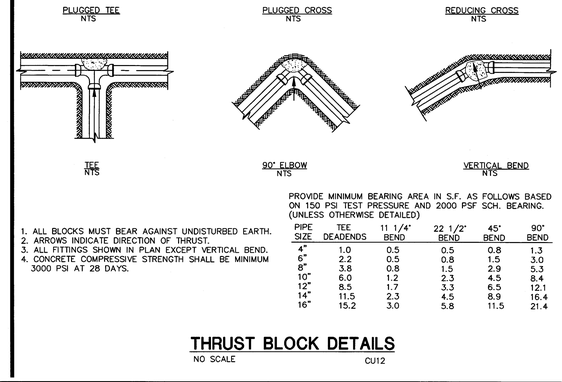
Schedule	
Downspout	PVC Pipe
8" x 8"	12" Dia.
10" x 10"	15" Dia.
12" x 12"	18" Dia.
4" x 6"	12" Dia.
5" x 9"	15" Dia.

NOTES:

1) FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
2) A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.
3) THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.
4) INSTALL PIPES CLEAR OF PORCHES, BOLLARDS, AND OTHER BUILDING APPURTENANCES.

EXTERIOR DOWNSPOUT COLLECTOR

N.T.S. DTDOWNEX.DXF



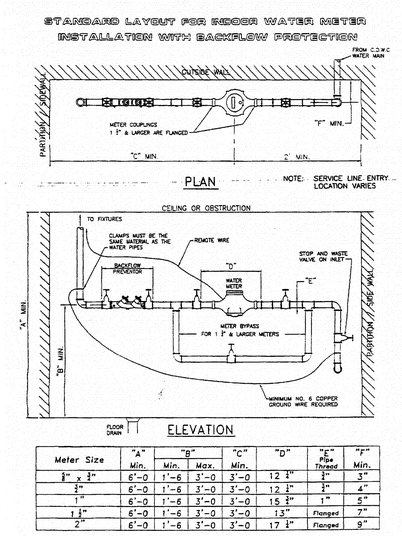
PROVIDE MINIMUM BEARING AREA IN S.F. AS FOLLOWS BASED ON 150 PSI TEST PRESSURE AND 2000 PSF SCH. BEARING. (UNLESS OTHERWISE DETAILED)

PIPE SIZE	TEE DEADENDS	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND
4"	1.0	0.5	0.5	0.8	1.3
6"	2.2	0.5	0.8	1.5	3.0
8"	3.8	0.8	1.5	2.9	5.3
10"	6.0	1.2	2.3	4.5	8.4
12"	8.5	1.7	3.3	6.5	12.1
14"	11.5	2.3	4.5	8.9	16.4
16"	15.2	3.0	5.8	11.5	21.4

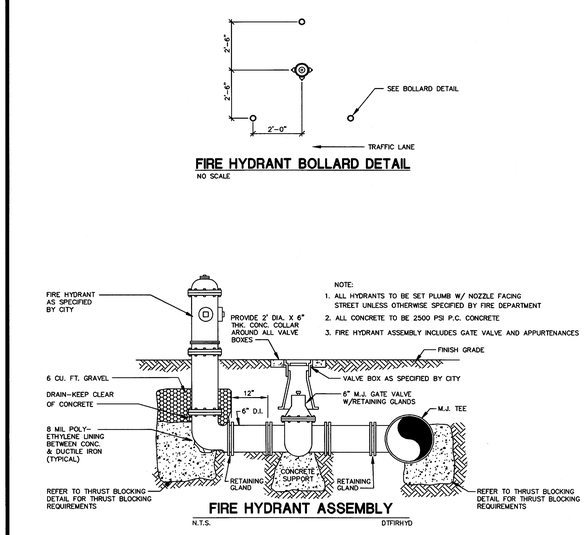
1. ALL BLOCKS MUST BEAR AGAINST UNDISTURBED EARTH.
2. ARROWS INDICATE DIRECTION OF THRUST.
3. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE MINIMUM 3000 PSI AT 28 DAYS.

THRUST BLOCK DETAILS

NO SCALE CU12



Meter Size	"A" Min.	"B" Min.	"B" Max.	"C" Min.	"D"	"E" Pipe Thread	"F" Min.
3/4" x 3/4"	6'-0	1'-6	3'-0	3'-0	12 1/2"	3"	3"
3/4"	6'-0	1'-6	3'-0	3'-0	12 1/2"	3"	4"
1"	6'-0	1'-6	3'-0	3'-0	15 1/2"	1"	5"
1 1/2"	6'-0	1'-6	3'-0	3'-0	13"	Flanged	7"
2"	6'-0	1'-6	3'-0	3'-0	17 1/2"	Flanged	9"



FIRE HYDRANT BOLLARD DETAIL

NO SCALE

NOTE:
1. ALL HYDRANTS TO BE SET PLUMB W/ NOZZLE FACING STREET UNLESS OTHERWISE SPECIFIED BY FIRE DEPARTMENT
2. ALL CONCRETE TO BE 2500 PSI P.C. CONCRETE
3. FIRE HYDRANT ASSEMBLY INCLUDES GATE VALVE AND APPURTENANCES

FIRE HYDRANT ASSEMBLY

N.T.S. DTFIRHYD

Wolverton & Associates
CIVIL ENGINEERS & LAND SURVEYORS
Consulting Engineers & Land Surveyors
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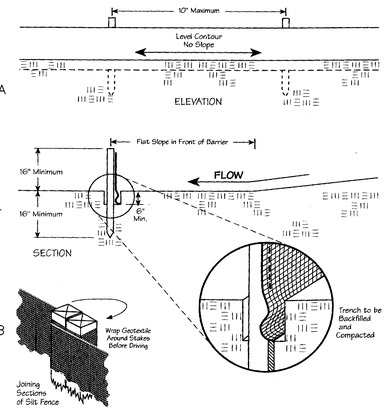
STATE OF OHIO — CHRISTOPHER J. WOLVERTON, JR. — E-53719 — REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
MASSILLON MARKETPLACE BOULEVARD
MASSILLON, OHIO

REVISIONS	BY

DRAWN BY	TS
CHECKED BY	TS
DATE:	1/27/03
SCALE:	AS NOTED
JOB No.	02-271
SHEET NUMBER	D-3
OF	SHEETS



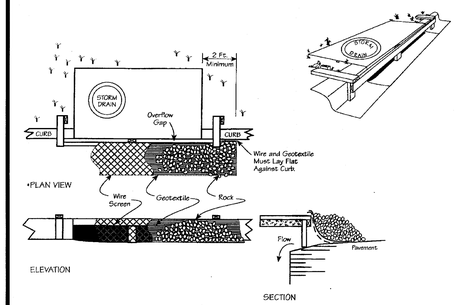
1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions which may carry small concentrated flows to the silt fence are dissipated along its length.
3. To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.
4. Where possible, silt fence shall be placed on the flattest area available.
5. Where possible, vegetation shall be preserved for 5 ft. (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 in. above the original ground surface.
7. The silt fence shall be placed in a trench cut a minimum of 8 in. deep. The trench shall be cut with a trencher, cable laying machine, or other suitable device which 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 in. of cloth are below the ground surface. Excess material shall lay on the bottom of the 6-in.-deep trench. The trench shall be backfilled and compacted.
9. Seams between section of silt fence shall be overlapped with the end stakes of each section wrapped together before driving into the ground.
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, 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.

Criteria for Silt Fence Materials

1. Fence Posts--The length shall be a minimum of 32 in. long. Wood posts will be 2-by-2-in. hardwood of sound quality. The maximum spacing between posts shall be 10 ft.
2. Silt Fence Fabric (see chart below):

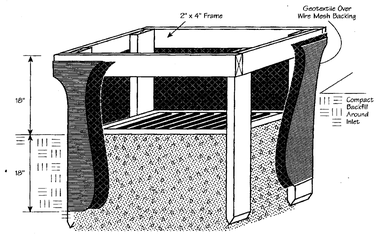
Fabric Properties	Values	Test Method
Grab Tensile Strength	90 lb. minimum	ASTM D 1682
Mullen Burst Strength	190 psi minimum	ASTM D 3786
Slurry Flow Rate	0.3 gal./min./ft² maximum	
Equivalent Opening Size	40-80	US Std. Sieve CW-02215
Ultraviolet Radiation Stability	90% minimum	ASTM-G-26

Sd1 SILT FENCE
N.T.S.



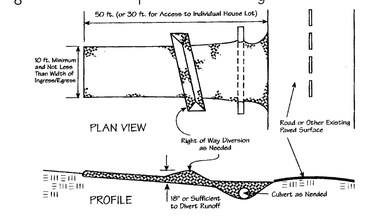
1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
2. The wooden frame is to be constructed of 2-by-4-in. construction-grade lumber. The end spacers shall be a minimum of 1 ft. beyond both ends of the throat opening. The anchors shall be nailed to 2-by-4-in. stakes driven on the opposite side of the curb.
3. The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 30 in. and 4 ft. longer than the throat length of the inlet, 2 ft. on each side.
4. Geotextile cloth shall have an equivalent opening size (EOS) of 20-40 sieve and be resistant to sunlight. It shall be at least the same size as the wire mesh.
5. The wire mesh and geotextile cloth shall be formed to the concrete gutter and against the face of the curb on both sides of the inlet and securely fastened to the 2-by-4-in. frame.
6. Two-inch stone shall be placed over the wire mesh and geotextile in such a manner as to prevent water from entering the inlet under or around the geotextile cloth.

Sd4 CURB INLET PROTECTION
N.T.S.



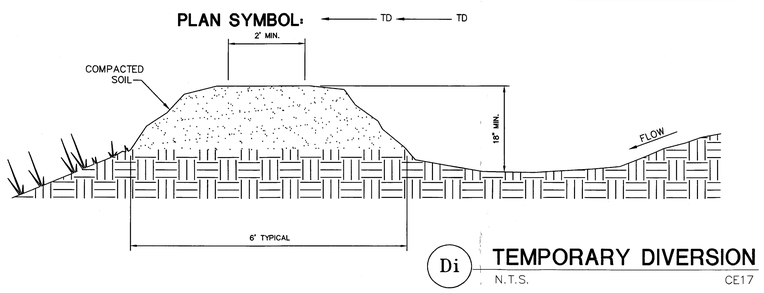
1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
2. The earth around the inlet shall be excavated completely to a depth at least 18 in.
3. The wooden frame shall be constructed of 2-by-4-in. construction-grade lumber. The 2-by-4-in. posts shall be driven 1 ft. into the ground at four corners of the inlet and the top portion of 2-by-4-in. frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in. below adjacent roads if ponded water would pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in. below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
6. Backfill shall be placed around the inlet in compacted 6-in. layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacted earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a settling pond. The top of earth dikes shall be at least 6 in. higher than the top of the frame.

Sd2 DROP INLET PROTECTION
N.T.S.



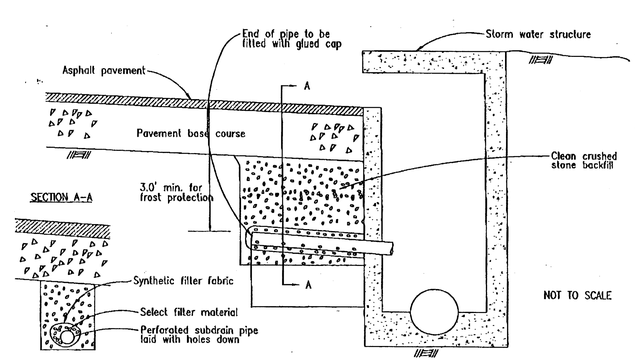
1. Stone Size--Two-inch stone shall be used, or recycled concrete equivalent.
2. Length--The construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 ft. (except on single residence lot where a 30-ft. minimum length applies).
3. Thickness--The stone layer shall be at least 6 in. thick.
4. Width--The entrance shall be at least 10 ft. wide, but not less than the full width at points where ingress or egress occurs.
5. Bedding--A geotextile shall be placed over the entire area prior to placing stone. It shall have a Grab Tensile Strength of at least 200 lb. and a Mullen Burst Strength of at least 190 lb.
6. Culvert--A pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces.
7. 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.
8. 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.
9. 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.

Co CONSTRUCTION ENTRANCE
N.T.S.



Di TEMPORARY DIVERSION
N.T.S. CE17

72555



NOTES
1) Stub-out aggregate drains to be installed at all storm water inlet structures.
2) Two drains to be installed at grate inlet locations – one on each upgradient side and 60' from line of drainage flow.
3) One drain at curb inlet locations perpendicular to curb.

STUB DRAIN
Cafaro Property
Charleston, West Virginia

MAY 7, 1999 9:56AM THE REALTY NO. 7956 P. 2/2

Wolverton & Associates
INCORPORATED
Consulting Engineers & Land Surveyors
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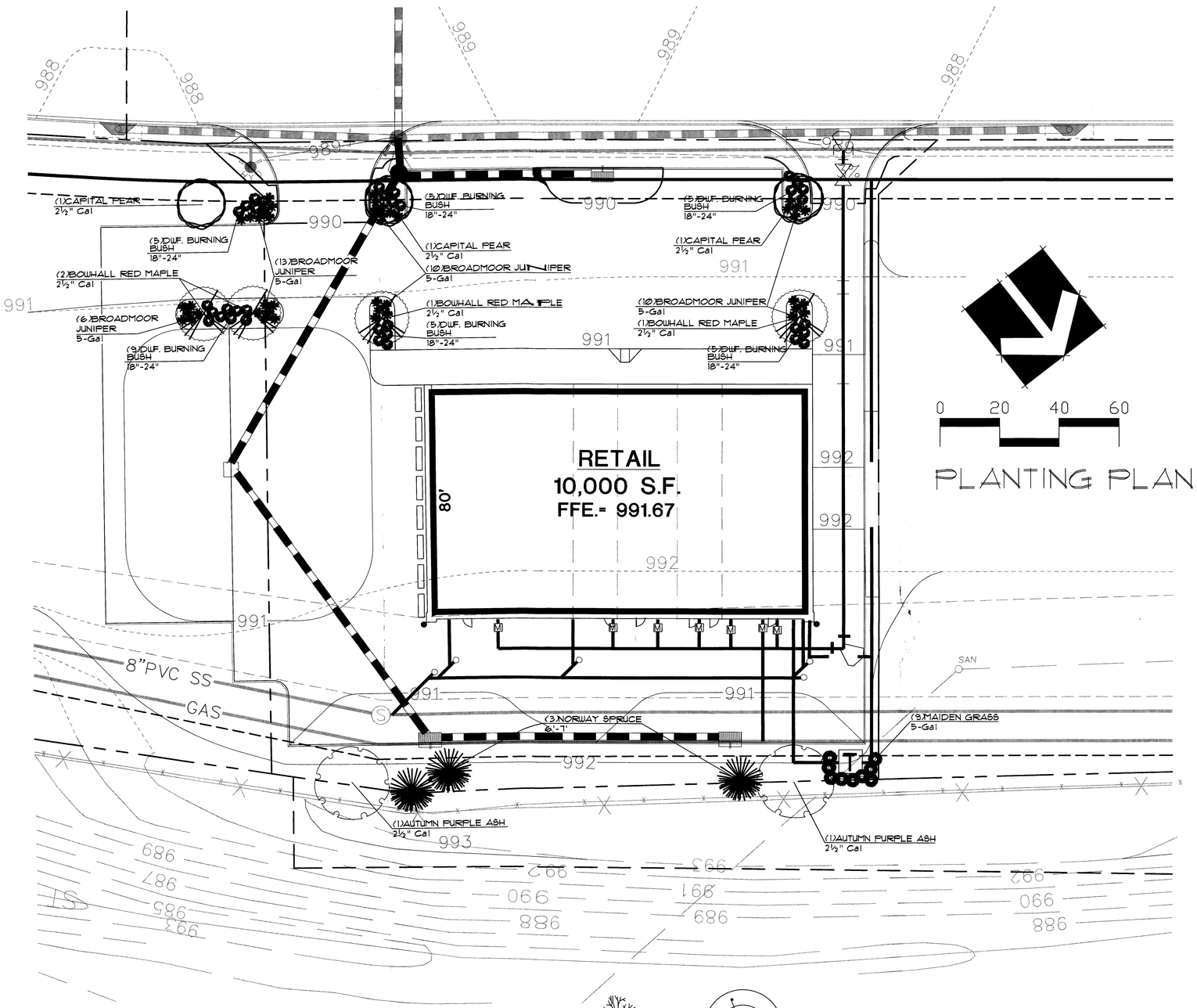
STATE OF OHIO
LAWRENCE J. WOLVERTON, JR.
E-53719
REGISTERED PROFESSIONAL ENGINEER

Project Title
PROPOSED RETAIL SHOPS FOR
OUTLOT #6 MASSILLON MARKET PLACE
MASSILLON MARKETPLACE BOULEVARD
MASSILLON, OHIO

REVISIONS	BY

DRAWN BY	TS
CHECKED BY	TS
DATE:	1/27/03
SCALE:	AS NOTED
JOB No.	02-271
SHEET NUMBER	D-4
OF	SHEETS



0 20 40 60

PLANTING PLAN

NOTES:

1.) All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing structures or vegetation from damage due to equipment usage. Contractor shall at all times protect all materials and work against injury to public.

2.) The landscape contractor shall be responsible for any coordination with other site related work being performed by other contractors. Refer to architectural drawings for further coordination of work to be done.

3.) Underground facilities, structures and utilities must be considered approximate only. There may be others not presently known or shown. It shall be the landscape contractor's responsibility to determine or verify the existence of and exact location of the above.

4.) Plant material are to be planted in the same relationship to grade as was grown in nursery conditions.

5.) All mulch to be Meramec gravel at 3" depth over fabric (after compaction) unless otherwise noted. Mulch shall be clean and free of all foreign materials. Edge all beds with Valley-View edge unless otherwise noted. Provide alternate for Ryerson steel edge.

6.) It shall be the landscape contractor's responsibility to:
- A.) Verify all existing and proposed features shown on the drawings prior to commencement of work.
- B.) Report all discrepancies found with regard to existing conditions or proposed design to the landscape architect immediately for a decision.
- C.) Stake the locations of all proposed plant material and obtain the approval of the owner's representative or landscape architect prior to installation.

7.) The landscape contractor is to receive the site graded to within 1/10 of a foot. Landscape contractor to obtain letter of grade certification from the general contractor prior commencement of work.

8.) All planting beds shall be cultivated to 6" depth minimum and graded smooth immediately before planting of plants. Plant perennials to within 18" of trunk of trees or shrubs planted within the area.

9.) All plant material (excluding ground cover, perennials and annuals) are to be warranted for a period of 12 months after installation at 100% of the installed price.

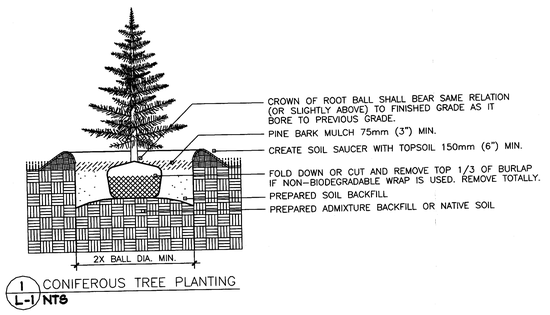
10.) All disturbed lawn areas to be seeded with a mixture of Turf-Type fescue (300# per acre) and bluegrass (18# per acre). Landscape contractor shall offer an alternate price for sod in lieu of seed. Lawn areas shall be unconditionally warranted for a period of 90 days from date of final acceptance. Bare areas more than one square foot per any 50 square feet shall be replaced.

11.) Items shown on this drawing take precedence over the material list. It shall be the landscape contractor's responsibility to verify all quantities and conditions prior to implementation of this plan. No substitutions of types or size of plant materials will be accepted without written approval from landscape architect.

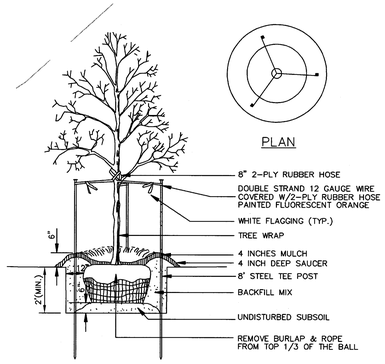
12.) Siltation controls may be required to prevent run-off. Straw bales placed end-to-end shall be used, anchored with no less than two 3/8" X 36" reinforcing rods. Bales shall remain until all graded areas are seeded or sodded.

PLANT SCHEDULE:

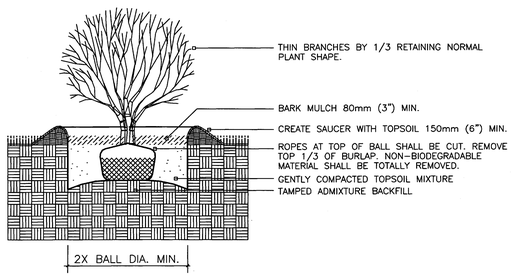
9	MAIDEN GRASS	Miscanthus sinensis 'Gracillimus'	5 Gallon
39	BROADMOOR JUNIPER	Juniperus sabina 'Broadmoor'	5 Gallon
34	DWARF BURNING BUSH	Euonymus alatus 'Compacta'	18"-24" B&B
2	AUTUMN PURPLE ASH	Fraxinus americana 'Autumn Purple'	2½" Caliper
4	BOWHALL RED MAPLE	Acer rubrum 'Bowhall'	2½" Caliper
3	CAPITAL PEAR	Pyrus calleryana 'Capital'	2½" Caliper
3	NORWAY SPRUCE	Picea abies	6'-7'



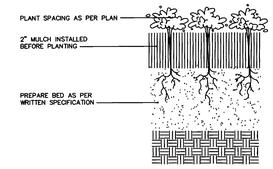
1 L-1 CONIFEROUS TREE PLANTING NTS



2 L-1 DECIDUOUS TREE PLANTING NTS



3 L-1 SHRUB PLANTING – BALL AND BURLAP NTS



4 L-1 PERENNIAL/GROUNDCOVER PLANTING NTS

REVISIONS	BY

landscape TECHNOLOGIES
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PROPOSED PLANTING PLAN FOR THE
Outlot #6
MASSILLON MARKETPLACE
MASSILLON, OHIO

DRAWN	RWM
CHECKED	RWM / GJB
DATE	3/18/03
SCALE	1"-20'
JOB No.	
SHEET	L-1
OF ONE SHEET	