BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO

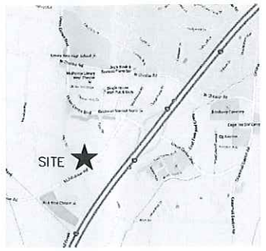
GENERAL NOTES

1. ALL PLANS & CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT "RULES AND REGULATIONS" OF WEST CHESTER TOWNSHIP, BUTLER COUNTY AND APPLICABLE OHIO DEPARTMENT OF TRANSPORTATION STANDARDS.
2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
3. THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS. OWNER WILL OBTAIN PERMITS.
4. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS FOR WEST CHESTER TOWNSHIP AND BUTLER COUNTY.
5. CONTRACTOR TO REMOVE VEGETATION AND CLEAR AREAS AS NECESSARY TO PERFORM ALL SITE WORK INCLUDING GRADING AND UTILITY WORK.
6. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.
7. ALL FILL UNDER PAVEMENT SHALL BE COMPACTED TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND SPECIFICATIONS.
8. COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
9. ADJUST ALL EXISTING CASTINGS AND CLEANOUTS WITHIN PROJECT AREA TO GRADE AS REQUIRED.
10. CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY BUTLER COUNTY AND THE OHIO EPA.
11. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATIONS ITEM 659.
12. ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE MAINTAINED BY THE OWNER.
13. ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
14. PRIVATE WATER MAIN AFTER THE METER PIT IS TO BE C-900 OR DUCTILE IRON PIPE.
15. STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: PVC SDR-35, PVC PROFILE PIPE PER ODOT ITEM 707.42, HIGH DENSITY POLYETHYLENE PER ODOT ITEM 707.33, OR REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. STORM SEWER PIPE LABELED "CONC" SHALL BE REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. ALL STORM IS TO BE INSTALLED PER ODOT ITEM 603. ALL STORM PIPE USED MUST HAVE A MANUFACTURER SPECIFIED FRICTION FACTOR OF 0.015 (N=0.015) OR LESS.
16. ALL WATERMAIN CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED 18" BELOW WATERMAIN AT ALL CROSSINGS. WATERMAIN SHALL BE LOCATED A MINIMUM OF 10' HORIZONTALLY FROM ANY SANITARY SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERMAIN PIPE. ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE. ALL WATER SHALL HAVE A MINIMUM OF 4' OF COVER.
17. ALL CATCH BASINS IN THE PAVEMENT OR CURB ARE TO HAVE 4" PERFORATED UNDERDRAINS EXTENDING 12 LF FROM THE CATCH BASIN IN EACH UPHILL DIRECTION.
18. ANY FIELD TILE CUT IN EXCAVATION MUST BE TIED INTO THE STORM DRAINAGE SYSTEM.
19. ALL MANHOLES AND CATCH BASINS WITH A DEPTH GREATER THAN 4' SHALL BE PROVIDED WITH DUCTILE IRON, CAST ALUMINUM OR STEEL REINFORCED PLASTIC STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 604.
20. DISTANCES SHOWN FOR STORM SEWER PIPES ARE MEASURED FROM CENTER OF STRUCTURE. CONTRACTOR RESPONSIBLE FOR ACTUAL FIELD CUT LENGTH. COORDINATES FOR STORM STRUCTURES ARE SHOWN TO THE CENTER OF STRUCTURE.
21. ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
22. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. CONTRACTOR TO VERIFY APPROPRIATE CLEARANCE OF UTILITY PLANNED UTILITY CROSSINGS BEFORE ANY CONSTRUCTION. CALL ENGINEER IMMEDIATELY WITH ANY CONFLICTS OR DISCREPANCIES.
23. FORTY-EIGHT HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE OHIO UTILITY PROTECTION SERVICES (OUPS), AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
24. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB, UNLESS OTHERWISE NOTED.
25. ALL PARKING SPACES ARE 18'x9'
26. SITE SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
27. BRING ALL EXISTING UTILITY CASTINGS TO GRADE.

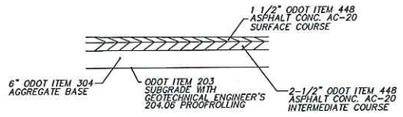
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT UNLESS OTHERWISE SPECIFIED. WHEN IN CONFLICT, THE BUTLER COUNTY REQUIREMENTS SHALL PREVAIL.

UTILITIES NOTIFICATION
AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN ON THE PLAN.

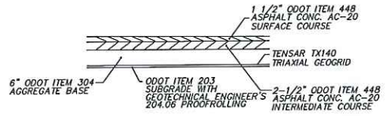
THE OWNER OF THE UNDERGROUND FACILITY SHALL, WITHIN 48 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS), MARK THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE AND THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.



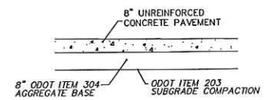
VICINITY MAP
N.T.S



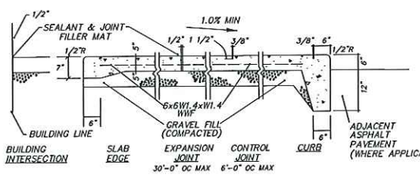
1 C100 STANDARD ASPHALT PAVEMENT
N.T.S.



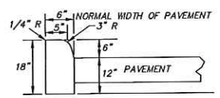
2 C100 HEAVY DUTY ASPHALT PAVEMENT
N.T.S.



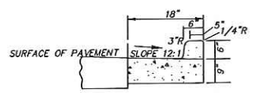
3 C100 CONCRETE PAVEMENT
N.T.S.



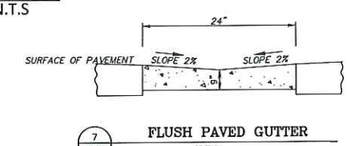
4 C100 TYPICAL EXTERIOR CONCRETE SLAB WALK
N.T.S.



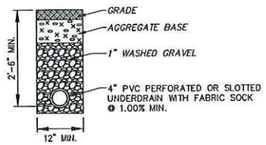
5 C100 BARRIER CURB (ODOT TYPE 6)
N.T.S.



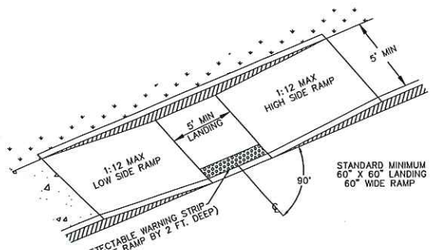
6 C100 CURB & GUTTER
N.T.S.

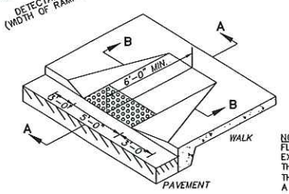


7 C100 FLUSH PAVED GUTTER
N.T.S.

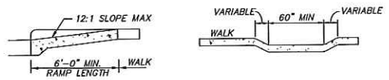


8 C100 UNDERDRAIN DETAIL
N.T.S.





NOTE:
FLARED RAMP SIDES SHALL NOT EXCEED 1:10. IF THE DISTANCE TO THE BACK OF THE RAMP IS LESS THAN 4', SIDES SHALL NOT EXCEED A 1:12 SLOPE.



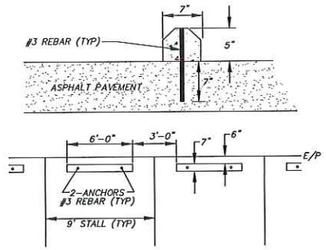
9 C100 CURB RAMP DETAILS
N.T.S.

INDEX

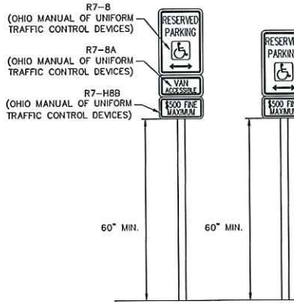
TITLE SHEET....C100
EXISTING CONDITIONS....C110
LOCATION PLAN....C120
UTILITY PLAN....C130
GRADING PLAN....C140
EROSION NOTES AND DETAILS....C150

ENGINEER
RVP ENGINEERING, LLC
ROB PAINTER, P.E.
4333 AARON COURT
CINCINNATI, OHIO 45241
(513) 403-1084

APPLICANT
HIFIVE DEVELOPMENT SERVICES
DAVE ARNOLD
202 WEST MAIN STREET
MASON, OHIO USA 45040
(513) 336-9280



10 C100 PRE-CAST WHEEL STOPS
N.T.S.



GENERAL NOTES:
1. U-TYPE FLANGED STEEL SIGN POST SET IN EARTH, IF OUTSIDE PAVEMENT EDGE, OR IN CONCRETE, IF WITHIN PAVEMENT, TO A MINIMUM DEPTH OF 3'-0".

R7-8 NOTES:
1. 12" X 18" X 16 GA. STEEL SIGN
2. GREEN LETTERING, BORDER, AND ARROW WITH WHITE BACKGROUND. WHITE HANDICAP SYMBOL IN BLUE BOX.

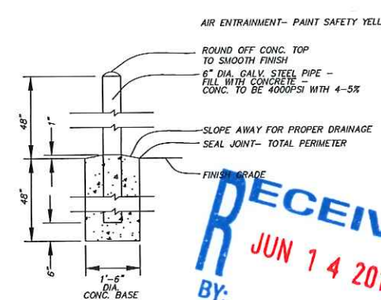
R7-8A NOTES:
1. 12" X 6" X 16 GA. STEEL SIGN
2. GREEN LETTERING AND BORDER WITH WHITE BACKGROUND.

R7-H88 NOTES:
1. 12" X 6" X 16 GA. STEEL SIGN
2. GREEN LETTERING AND BORDER WITH WHITE BACKGROUND.

NOTE: ONE PARKING SPACE MINIMUM SHALL BE DESIGNATED AS "VAN ACCESSIBLE". LOCATION AS NOTED ON THE DRAWINGS.

ONE SIGN TO BE INSTALLED AT EACH ACCESSIBLE PARKING SPACE

11 C100 ACCESSIBLE PARKING SIGN DETAIL
N.T.S.



12 C100 TYPICAL PIPE BOLLARD
N.T.S.

RECEIVED
JUN 14 2015
BY:

STATE OF OHIO ROBERT V. PAINTER 69810 REGISTERED PROFESSIONAL ENGINEER

RVP ENGINEERING

REVISIONS

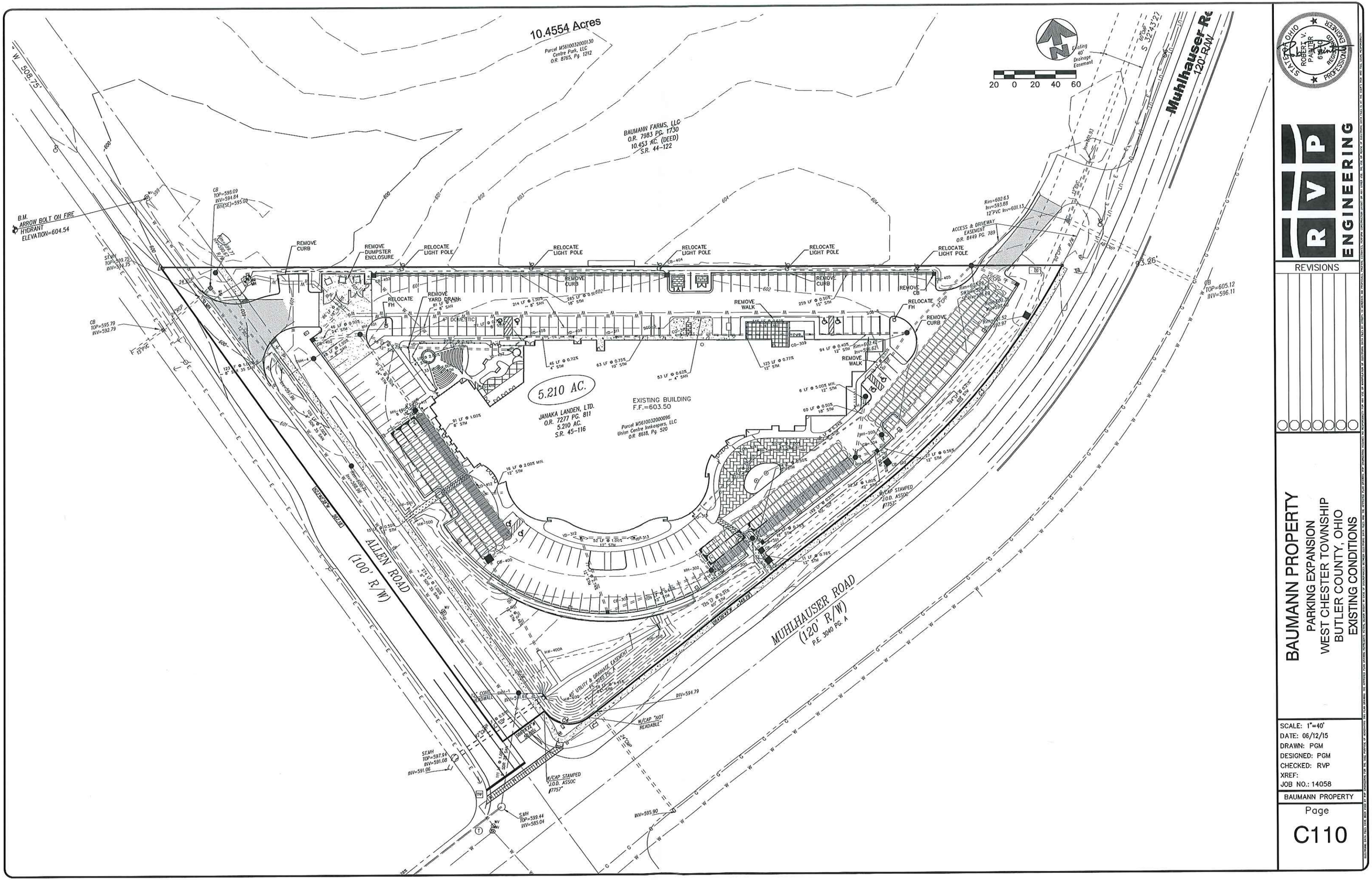
BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
TITLE SHEET

SCALE: 1"=40'
DATE: 06/12/15
DRAWN: PGM
DESIGNED: PGM
CHECKED: RVP
XREF:
JOB NO.: 14058

BAUMANN PROPERTY

Page
C100

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REVISIONS

BAUMANN PROPERTY

PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
EXISTING CONDITIONS

SCALE: 1"=40'
DATE: 06/12/15
DRAWN: PGM
DESIGNED: PGM
CHECKED: RVP
XREF:
JOB NO.: 14058

BAUMANN PROPERTY

Page
C110

10.4554 Acres

Parcel M5610032000130
Centre Park, LLC
O.R. 8765, Pg 1212

DRAINAGE EASEMENT

75.95'

4" CONCRETE MICRO-POOL BOTTOM

DETENTION BASIN

PROPOSED DUMPSTER ENCLOSURE

EXISTING GENERATOR AND TRANSFORMER

EXISTING BUILDING
F.F.=603.50

Parcel M5610032000096
Union Centre Innkeepers, LLC
O.R. 6618, Pg 520

Muhlhauser Rd
120' R/W

S 32°43'27" E 326.26'

P.E. 3040 PG. A

W/CAP STAMPED "J.O.D. ASSOC 17757"

W/CAP "NOT READABLE"

CONC. SIDEWALL

W 509.75'

20 0 20 40 60

SITE DATA

SITE GROSS AREA	=5.47 ACRES (238,407 SF)
OPEN SPACE	=1.43 ACRES (62,158 SF)
OPEN SPACE CALC	=26% OPEN SPACE

PARKING

EXISTING PARKING TO REMAIN	=151 SPACES
PROPOSED PARKING	=123 SPACES
H/C	=6 SPACES
TOTAL	=280 SPACES

STATE OF OHIO
ROBERT V. PAETTY
6/12/15
REGISTERED PROFESSIONAL ENGINEER

RVP ENGINEERING

REVISIONS

BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
LOCATION PLAN

SCALE: 1"=40'
DATE: 06/12/15
DRAWN: PGM
DESIGNED: PGM
CHECKED: RVP
XREF:
JOB NO.: 14058

BAUMANN PROPERTY

Page
C120

10.4554 Acres

Parcel M56I0032000130
Centre Park, LLC
O.R. 8765, Pg. 1212

BAUMANN FARMS, LLC
O.R. 7983 PG. 1730
10.453 AC. (DEED)
S.R. 44-122

5.210 AC.

JANAKA LANDEN, LTD.
O.R. 7277 PG. 811
5.210 AC.
S.R. 45-116

EXISTING BUILDING
F.F.=603.50

Parcel M56I0032000056
Union Centre Innkeepers, LLC
O.R. 8618, Pg. 520

ALLEN ROAD
(100' R/W)

MUHLHAUSER ROAD
(120' R/W)
P.B. 3040 PG. A

Muhlhauser Rd
120' R/W

DRAINAGE EASEMENT

existing 40' Drainage Easement

40' UTILITY & DRAINAGE EASEMENT
P.B. 3040 PG. A

ACCESS & DRIVEWAY EASEMENT
O.R. 8449 PG. 789

B.M.
ARROW BOLT ON FIRE HYDRANT
ELEVATION=604.54

RELOCATED LIGHT POLE

RELOCATED FROST PROOF WATER BIB

RELOCATED FIRE HYDRANT

CONNECT TO EXISTING WATER

CHANGE CB TOP TO FLAT GRATE

REMOVE YARD DRAIN

ADJUST CB TOP TO MATCH GUTTER LINE

W/CAP "NOT READABLE"

W/CAP STAMPED "J.O.D. A550C #7757"

S.M.H. TOP=597.94 INV=591.08

S.M.H. TOP=599.44 INV=585.04

INV=594.79

INV=595.90

INV=591.08

Rim=602.63
Inv=593.88
12"PVC Inv=601.13

Rim=602.42
Inv=586.62

Rim=602.52
Inv=592.97

CB TOP=605.12 INV=596.11

CB TOP=595.79 INV=592.79

STMH TOP=599.75 INV=594.75

Rim=602.71
W Inv=589.86

Inv=597.86

Inv=601.53

TOP OF STRUCTURE ELEV=598.18
12"ORIFICE INV=596.68
CONNECT TO SKIMMER. REMOVE SKIMMER AND PLACE FABRIC AND ROCK FOR PERMANENT CONDITION.
12" OUTLET INV=595.35
4" PVC WITH CAP
18" SUMP FILLED WITH CONC ELEV=593.85
2" HOLE THROUGH CAP INV=595.35

DETENTION OUTLET CONTROL STRUCTURE
N.T.S

(100) ODOT CB No. 3A
N 9453.71
E 9994.95
GRATE=601.19
INV OUT=597.45 (15") SW

(101) ODOT CB No. 3A
N 9541.83
E 9657.79
GRATE=600.03
INV OUT=596.28 (18") W

(102) ODOT CB No. 3A BC
N 9512.12
E 9538.94
GRATE=601.02
INV OUT=597.25 (12") N

(103) ODOT CB No. 3 BC
N 9586.64
E 9548.30
GRATE=600.02
INV IN=595.90 (18") E
INV OUT=595.85 (18") NW
INV IN=596.15 (12") S

(104) ODOT HEADWALL
N 9607.19
E 9527.85
GRATE=598.00
INV IN=595.75 (18") SE

(200) ODOT CB No. 3A BC
N 9366.84
E 10185.19
GRATE=600.95
INV OUT=596.99 (15") W

(300) ODOT CB No. 2-2B
SEE DETAIL
N 9600.61
E 9500.02
GRATE=597.68
INV OUT=595.35 (12") SW

(301) ODOT CB No. 2-2B
N 9584.93
E 9466.06
GRATE=598.54
INV IN=595.10 (12") NE
INV OUT=595.10 (12") S

(500) YARD DRAIN
N 9382.83
E 9673.30
GRATE=602.90
INV OUT=600.90 (4") NE

(501) YARD DRAIN
N 9400.59
E 9685.65
GRATE=602.85
INV OUT=600.25 (4") SW

YD-500 & 501 TO BE ADJUSTED TO GRADE OF THE WEDDING GARDEN.

YD-506 TO BE CUT IN TO THE EXISTING CURB AND CONNECTED TO YD-407

Skimmer Dewatering Device

(Not to Scale)

NOTES

1) All joints of the floatation section shall be glued together and watertight. Joints of the Skimmer section need not be watertight.

2) To install dewatering pipe stub:
- for corrugated metal riser, stub shall be Sch 40 steel pipe lock welded to create a watertight seal
- for concrete riser, stub shall be Sch 40 PVC pipe grouted to create a watertight seal.

3) Flexible, non-perforated HDPE drain pipe shall be attached to outlet structure dewatering stub with water-tight connections.

4) Orifice is to be sized for a minimum 48-hour dewatering time.

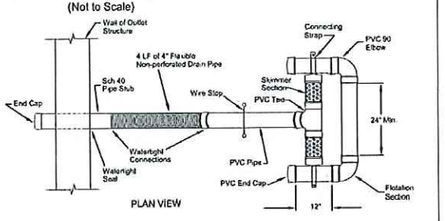


Figure 6.1.7 Delaware Dept. of Transportation Skimmer

STATE OF OHIO
ROBERT V. PAETZ
6/30/15
Registered PROFESSIONAL ENGINEER

RVP ENGINEERING

REVISIONS

BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
UTILITY PLAN

SCALE: 1"=40'
DATE: 03/25/15
DRAWN: PGM
DESIGNED: PGM
CHECKED: RVP
XREF:
JOB NO.: 14058

BAUMANN PROPERTY

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C130

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10.4554 Acres
Parcel M5610032000130
Centre Park, LLC
O.R. 8765, Pg. 1212

**NOTE: ALL SPOT ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED

EROSION CONTROL LEGEND
SF — SILT FENCE
DB DANDY BAG

DRAINAGE EASEMENT

EMERGENCY FLOOD ROUTE FROM BASIN AT 599.5' WIDE.

B.M. ARROW BOLT ON FIRE HYDRANT ELEVATION=604.54

BAUMANN FARMS, LLC
O.R. 7983 PG. 1730
10.453 AC. (DEED)
S.R. 44-122

5.210 AC.
JANAKA LANDEN, LTD.
O.R. 7277 PG. 811
5.210 AC.
S.R. 45-116

EXISTING BUILDING
F.F.=603.50

Parcel M5610032000096
Union Centre Innkeepers, LLC
O.R. 8618, Pg. 520

Existing 40' Drainage Easement

Muhlhauser Rd
120' R/W

ALLEN ROAD
(100' R/W)

MUHLHAUSER ROAD
(120' R/W)
P.E. 3040 PG. A

40' UTILITY & DRAINAGE EASEMENT P.E. 3040 PG. A

W/CAP STAMPED "O.D. ASSOC 7757"

W/CAP "NOT READABLE"

S.M.H. TOP=597.91 INV=591.08 INV=591.06

S.M.H. TOP=599.44 INV=585.04

INV=595.90

INV=594.79

C.B. TOP=595.79 INV=592.79

C.B. TOP=605.12 INV=596.11

STATE OF OHIO
ROBERT V. PAINTER
16210
REGISTERED
PROFESSIONAL ENGINEER

RVP ENGINEERING

REVISIONS

BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
GRADING PLAN

SCALE: 1"=40'
DATE: 03/25/15
DRAWN: PGM
DESIGNED: PGM
CHECKED: RVP
XREF:
JOB NO.: 14058

BAUMANN PROPERTY

Page
C140

EROSION CONTROL NOTES:

1. DESCRIPTION OF CONSTRUCTION:

SITE PLAN FOR AN EXISTING HOTEL CONSISTING OF PARKING LOT, AND STORM SEWERS.

2. AREA AFFECTED BY CONSTRUCTION (GRADED AREA): APPROX. 2.4 ACRES

3. EXISTING SOIL DATA:

FcA: FINCASTLE SILT LOAM, 0 to 2 percent slope

RdA: RAUB SILT LOAM, 2 to 6 percent slopes

4. RECEIVING WATERS:
TRIBUTARY TO MILL CREEK

5. POTENTIAL POLLUTION SOURCES:
- REMOVAL OF NATURAL PLANT COVER.
- CUT AND FILL AREAS EXPOSED TO EROSION AND RUNOFF PRIOR TO STABILIZATION.
- CHANGES IN VOLUME AND DURATION OF WATER CONCENTRATIONS CAUSED BY ALTERING STEEPNESS, DISTANCE AND SURFACE ROUGHNESS.
- PARKING SUBGRADE PRIOR TO PAVING.
- REDUCTION OF PERMEABILITY OF SOILS CAUSING ADDITIONAL RUNOFF DUE TO COMPACTION BY HEAVY EQUIPMENT.

6. CURVE NUMBERS:
PRE-DEVELOPMENT C VALUE = 0.90
POST CONSTRUCTION C VALUE = 0.90

7. PROJECT SCHEDULE:
BEGIN CONSTRUCTION: SUMMER 2015
END CONSTRUCTION: SPRING 2016

GENERAL CONSTRUCTION SEQUENCE *
A. INSTALL SEDIMENT CONTROL MEASURES
B. PRESERVE AND PROTECT EXISTING VEGETATION
C. INSTALL STORM WATER MANAGEMENT MEASURES
D. DEMOLITION ACTIVITES
E. CONSTRUCT SITE UTILITIES
F. GRADE SITE / STOCKPILE TOPSOIL
G. TEMPORARY VEGETATIVE STABILIZATION OF CONTROL MEASURES
H. VEGETATIVE COVER ON ALL AREAS TO BE EXPOSED LONGER THAN 45 DAYS
I. INSTALL ROAD AND PARKING SUBGRADE
J. SURFACE ROADS AND PARKING
K. PERMANENT VEGETATIVE STABILIZATION
L. HOURS OF OPPERATION ARE 7 DAYS A WEEK FROM 6 AM TO 9 PM

* TO BE FOLLOWED IN GENERAL ORDER FOR BEST MANAGEMENT PRACTICE, SOME INDIVIDUAL SITE CONSTRUCTION MAY NOT ALLOW FOR EXACT SEQUENCE.

8. CONTROL MEASURES FOR STORM WATER RUNOFF, EROSION AND SEDIMENT:

STABILIZATION OF DENUDED AREAS AND SOIL STOCKPILES

PERMANENT OR TEMPORARY SOIL STABILIZATION WILL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. SOIL STABILIZATION WILL ALSO BE APPLIED TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR MORE THAN 45 DAYS. APPLICABLE PRACTICES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING, AND THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED. SOIL STABILIZATION MEASURES WILL BE SELECTED TO BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE. SOIL STOCKPILES WILL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES TO PREVENT SOIL LOSS.

ESTABLISHMENT OF PERMANENT VEGETATION

A PERMANENT VEGETATIVE COVER WILL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION WILL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED WHICH IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE SEVERE WEATHER CONDITIONS. (SEE VEGETATIVE PRACTICES – ITEM 10).

PROTECTION OF ADJACENT PROPERTIES

PROPERTIES ADJACENT TO THE SITE OF LAND DISTURBANCE WILL BE PROTECTED FROM SEDIMENT DEPOSITION. THIS WILL BE ACCOMPLISHED BY PRESERVING A WELL VEGETATED BUFFER STRIP AROUND THE LOWER PERIMETER OF LAND DISTURBANCE, BY INSTALLING PERIMETER CONTROLS SUCH AS SEDIMENT TRAPS, FILTERS OR DIKES, OR SEDIMENT BASINS, OR BY A COMBINATION OF SUCH MEASURES. VEGETATED FILTER STRIPS MAY BE USED ALONE ONLY WHERE RUNOFF IN SHEET FLOW IS EXPECTED. FILTER STRIPS SHOULD BE AT LEAST 15 FEET IN WIDTH. IF AT ANY TIME IT IS FOUND THAT A VEGETATED FILTER STRIP ALONE IS INEFFECTIVE IN STOPPING SEDIMENT MOVEMENT INTO ADJACENT PROPERTY, ADDITIONAL PERIMETER CONTROLS MUST BE PROVIDED.

TIMING AND STABILIZATION OF SEDIMENT TRAPPING MEASURES

SEDIMENT BASINS, DIVERSIONS, SEDIMENT TRAPS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT ON-SITE WILL BE CONSTRUCTED AS A FIRST STEP IN GRADING AND BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS WILL BE SEEDED AND MULCHED AFTER INSTALLATION.

SEDIMENT BASINS

STORMWATER RUNOFF CONTAINING DAMAGING AMOUNTS OF SEDIMENT SHALL PASS THROUGH A SEDIMENT BASIN OR OTHER SUITABLE SEDIMENT TRAPPING FACILITY.

CUT AND FILL SLOPES

CUT AND FILL SLOPES WILL BE DESIGNED AND CONSTRUCTED IN A MANNER WHICH WILL MINIMIZE EROSION. SLOPES WHICH ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF CONSTRUCTION WILL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

STORMWATER MANAGEMENT

CONCENTRATED STORMWATER RUNOFF LEAVING THE SITE WILL BE DISCHARGED DIRECTLY INTO A WELL-DEFINED, ADEQUATELY-PROTECTED NATURAL OR MAN-MADE OFF SITE RECEIVING CHANNEL OR PIPE. IF NO OFF SITE CHANNEL OR PIPE EXISTS, THE STORMWATER WILL BE DETAINED ON SITE IN A SUITABLE RETENTION/DETENTION FACILITY.

STABILIZATION OF WATERWAYS AND OUTLETS

ALL ON SITE STORMWATER CONVEYANCE CHANNELS WILL BE DESIGNED AND CONSTRUCTED TO WITHSTAND THE EXPECTED VELOCITY OF FLOW FROM A 10 YEAR FREQUENCY STORM WITHOUT EROSION. DESIGN FOR A LARGER MAY BE NECESSARY FOR PROTECTION FROM THE STORMWATER FLOW. STABILIZATION ADEQUATE TO PREVENT EROSION WILL ALSO BE PROVIDED AT THE OUTLETS OF ALL PIPES AND PAVED CHANNELS.

STORM SEWER INLET PROTECTION

ALL STORM SEWER INLETS WHICH ARE MADE OPERABLE DURING CONSTRUCTION WILL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

WORKING IN OR CROSSING WATERCOURSES

CONSTRUCTION VEHICLES WILL BE KEPT OUT OF WATERCOURSES WHENEVER POSSIBLE. WHERE IN-CHANNEL WORK IS NECESSARY, PRECAUTIONS WILL BE TAKEN TO STABILIZE THE WORK AREA DURING CONSTRUCTION TO MINIMIZE EROSION. THE CHANNEL (INCLUDING BED AND BANKS) WILL ALWAYS BE RESTABILIZED IMMEDIATELY AFTER IN-CHANNEL WORK IS COMPLETED. WHERE A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES REGULARLY DURING CONSTRUCTION, A TEMPORARY STREAM CROSSING WILL BE PROVIDED.

CONSTRUCTION ACCESS ROUTES AND PARKING AREAS

WHENEVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS WILL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. TEMPORARY CONSTRUCTION ROADS WILL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE. SLOPES SHOULD NOT EXCEED 10 PERCENT. ROADBEDS SHALL BE AT LEAST 14 FEET WIDE FOR ONE-WAY TRAFFIC AND 20 FEET WIDE FOR TWO-WAY TRAFFIC. TEMPORARY PARKING AREAS WILL BE LOCATED ON NATURALLY FLAT AREAS WHENEVER POSSIBLE TO MINIMIZE GRADING. GRADES FOR SAID PARKING AREAS SHOULD BE SUFFICIENT TO PROVIDE DRAINAGE BUT NOT EXCEED 4 PERCENT SLOPE. BOTH TEMPORARY AND PERMANENT ROADS AND PARKING AREAS MAY REQUIRE PERIODIC TOP DRESSING WITH NEW GRAVEL. SEEDED AREAS ADJACENT TO ROADS AND PARKING AREAS WILL BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED.

DISPOSITION OF TEMPORARY MEASURES

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE DISPOSED OF AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT EROSION AND SEDIMENTATION.

MAINTENANCE

ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

i.e. STORM INLET PROTECTION
INLET STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE INLET PROTECTION SHALL BE RESTORED TO ITS ORIGINAL WORKING CONDITION. AT NO TIME SHALL MORE THAN A 2" BUILD UP OF SEDIMENT REMAIN AROUND THE INLET PROTECTION.

i.e. FILTER STRIPS
A HEALTHY GROWTH OF VEGETATION CAN BEST BE MAINTAINED BY FERTILIZING, REMOVING SEDIMENT WHEN FILTER BECOMES CLOGGED, AND BY PREVENTING CONSTRUCTION TRAFFIC FROM DRIVING ACROSS FILTER STRIPS.

i.e. SILT FENCES AND FILTER BARRIERS
SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

9. CONSTRUCTION CONTROL PRACTICES:

SILT FENCES (SF) SEE SILT FENCE DETAIL

MATERIAL: SYNTHETIC FILTER FABRIC SHALL BE A SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS.

PHYSICAL PROPERTY	REQUIREMENTS
FILTERING EFFICIENCY	75 PERCENT (MIN.)
TENSILE STRENGTH AT 20% (MAX.) ELONGATION	EXTRA STRENGTH 50 lbs/lin. in. (MIN.) STANDARD STRENGTH 30 lbs/lin. in. (MIN.)
FLOW RATE	0.3 gal./sq. ft./min. (MIN.)

* REQUIREMENTS REDUCED BY 50% AFTER 6 MONTHS OF INSTALLATION.

SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE OF ZERO DEGREES F TO 120 DEGREES F.

BURLAP SHALL BE 10 OUNCES PER SQ. YD. OF FABRIC.

POSTS FOR SILT FENCES SHALL BE EITHER 4" x 4" WOOD OR STEEL WITH A MIN. LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.

WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MIN. OF 42 INCHES IN HEIGHT, A MIN. OF 14 GA. AND SHALL HAVE A MAX. MESH SPACING OF 6 INCHES.

THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXCEED 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MIN. 6 INCH OVERLAP, AND SECURELY SEALED.

POSTS SHALL BE SPACED AT A MAX. OF 10 FEET APART. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.

WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS APPLYING.

FILTER BARRIERS (FB) SEE FILTER BARRIER DETAIL

MATERIAL	FLOW RATE (gal./sq. ft./min.)	FILTER EFFICIENCY %
STRAW	5.6	67
BURLAP (10 OZ. FABRIC)	2.4	84
SYNTHETIC FABRIC	0.3 (AVG.)	97 (AVG.)

THE HEIGHT OF A FILTER BARRIER SHALL BE A MIN. OF 15 INCHES AND SHALL NOT EXCEED 18 INCHES.

THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.

STAKES SHALL BE SPACED AT A MAX. OF 3 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MIN. OF 8 INCHES).

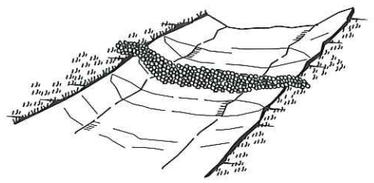
A TRENCH SHALL BE EXCAVATED APPROX. 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.

THE FILTER MATERIAL SHALL BE STAPLED ON THE WOODEN STAKES, AND 8 INCHES OF FABRIC SHALL BE EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST 1/2 INCH LONG SHALL BE USED. FILTER MATERIAL SHALL NOT BE STAPLED INTO EXISTING TREES.

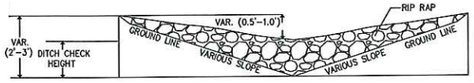
THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER MATERIAL.

IF A FILTER BARRIER IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE.

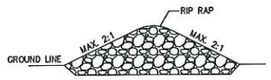
CHECK DAM (CD)
CHECK DAMS ARE USUALLY INEFFECTIVE FOR CATCHING SEDIMENT BUT CAN SLOW FLOW VELOCITIES AND REDUCE CHANNEL EROSION. ROCK TYPE AND SIZE OF THE DAM ARE TO BE DETERMINED BY THE ENGINEER.
IF AT ANY TIME IT IS FOUND THAT A CHECK DAM ALONE IS INEFFECTIVE IN ADEQUATELY PERFORMING ITS FUNCTION, ADDITIONAL CONTROL MEASURES MUST BE PROVIDED.



3D VIEW

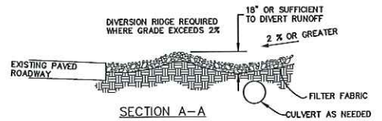


END VIEW

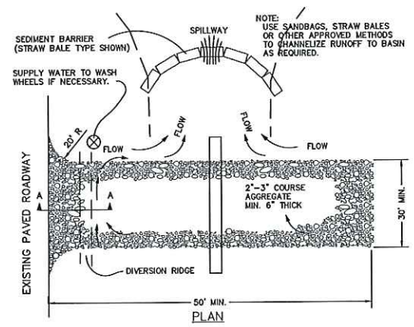


SIDE VIEW

CHECK DAM (CD)

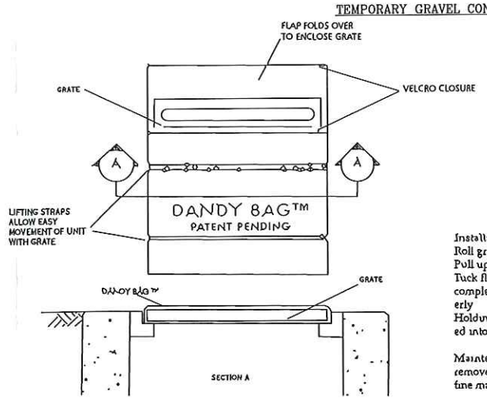


SECTION A–A



PLAN

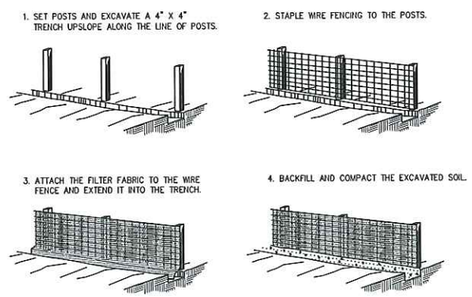
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

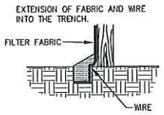


DANDY BAG (DB)

Installation Stand grate on end Place Dandy Bag™ over grate Roll grate over so that open end is up Pull up slack Tuck flap in Press velcro strips together Be sure end of grate is completely covered by flap or Dandy Bag™ will not work properly Holding handles, carefully place Dandy Bag™ with grate inserted into catch basin frame

Maintenance With a stiff bristle broom or square point shovel remove silt & other debris off surface after each event Remove fine material from inside envelope as needed





SILT FENCE (SF)

NOTE: STRAW BALE BARRIERS & SOD MAY BE SUBSTITUTED FOR SILT FENCE.

CONSTRUCTION SPECIFICATIONS
1. THE AGGREGATE SIZE FOR CONSTRUCTION OF THE PAD SHALL BE 2-TO 4-INCH STONE. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
2. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 6 INCHES. USE GEOTEXTILE FABRICS, IF NECESSARY, TO IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE. GEOTEXTILE SHALL HAVE A GRAB TENSILE STRENGTH OF 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LB.
3. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS AND IN ANY CASE, SHALL NOT BE LESS THAN 12 FEET WIDE. CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED
4. LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT LEAVING THE SITE AND TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID ENTRANCES WHICH HAVE STEEP GRADES AND ENTRANCES AT CURVES IN PUBLIC ROADS.
5. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS TO TRAP SEDIMENT.
6. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
7. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
8. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, STRAW BALES, OR OTHER APPROVED METHODS.
9. A CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE AND FROM BEING DIRECTED OUT ONTO PAVED SURFACES.

INSPECTION AND MAINTENANCE
1. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
2. REPLACE GRAVEL MATERIAL WHEN SURFACE VOIDS ARE VISIBLE.
3. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY.
4. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS WITHIN 24 HOURS.

STATE OF OHIO
ROBERT V. PAINTER
6/12/15
REGISTERED PROFESSIONAL ENGINEER

RVP ENGINEERING

REVISIONS

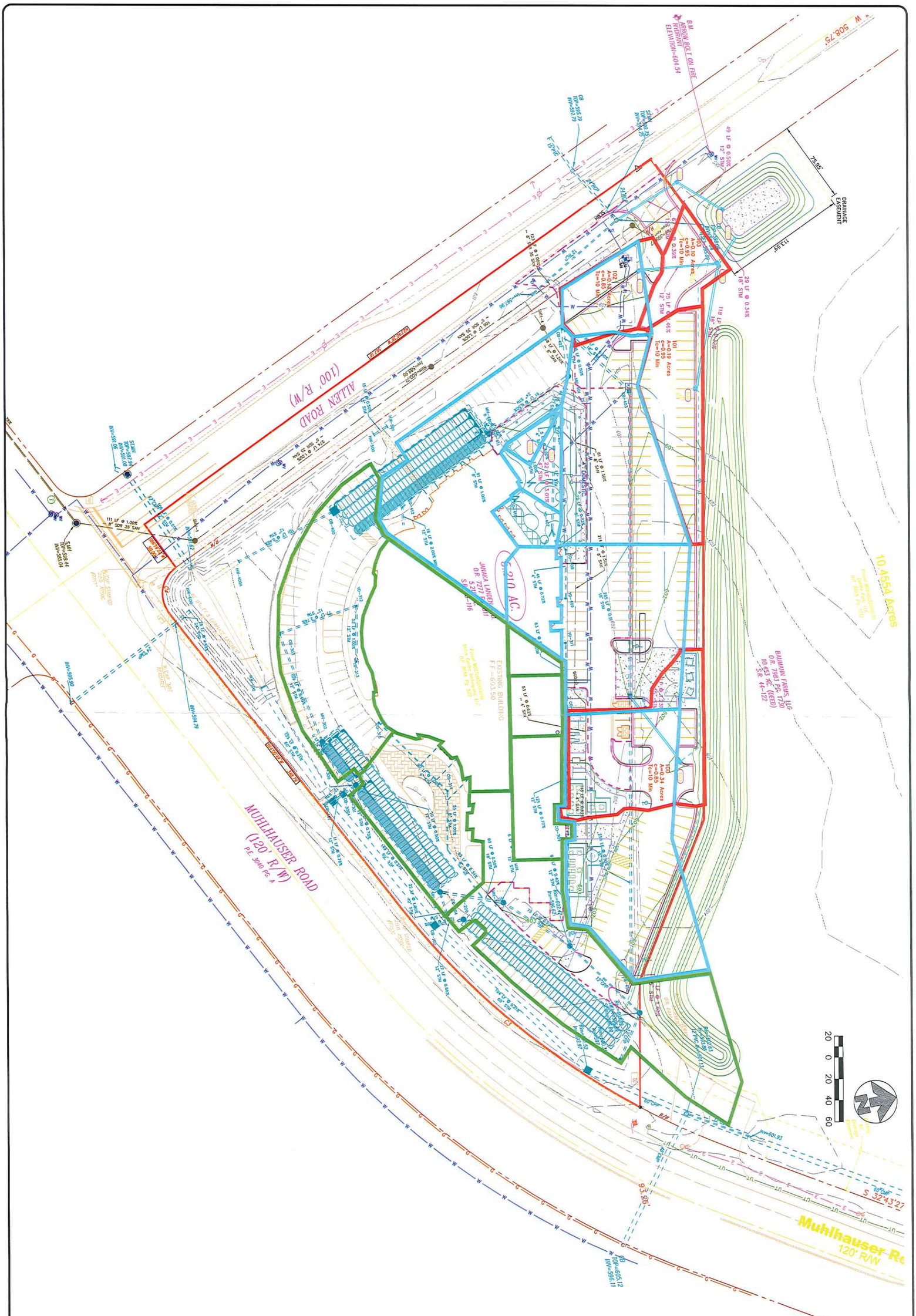
BAUMANN PROPERTY
PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
EROSION NOTES AND DETAILS

SCALE: 1"=40'
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BAUMANN PROPERTY

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BAUMANN PROPERTY

PARKING EXPANSION
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
DRAINAGE MAP

REVISIONS

RVP ENGINEERING

STATE OF OHIO
ROBERT V. PAINTER
67510
REGISTERED
PROFESSIONAL ENGINEER

SCALE: 1"=40'
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