

THREE STORAGE BUILDING ADDITIONS

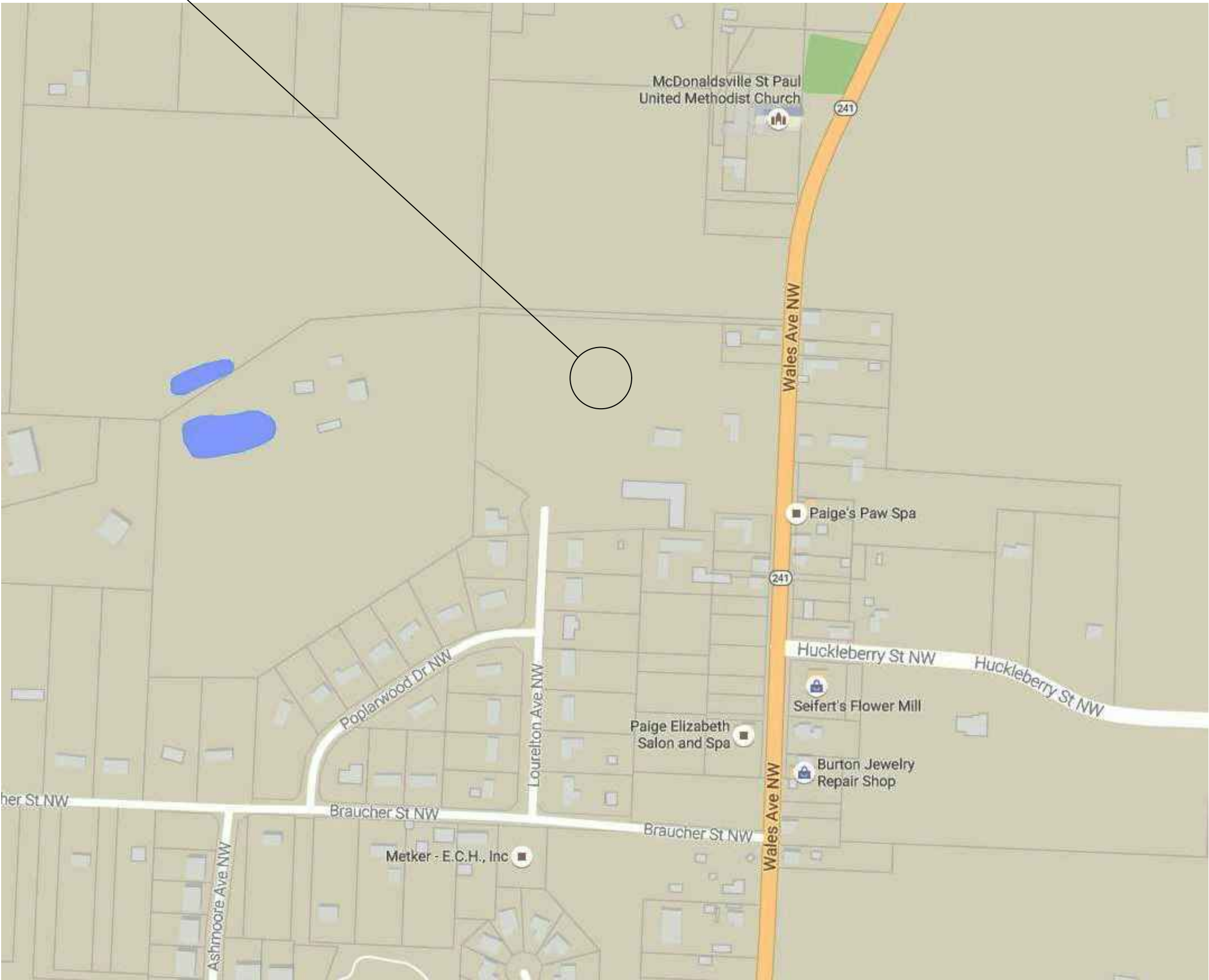
FJN THREE LLC

7475 WALES AVE. NW., NORTH CANTON, OHIO 44720

SITE

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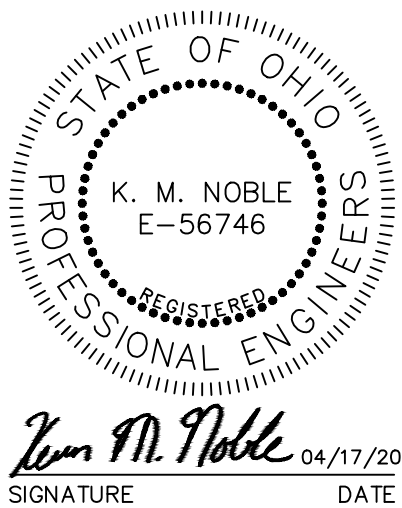
GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL CONTACT THE UTILITIES PROTECTION SERVICE TWO WORKING DAYS PRIOR TO STARTING THE JOB. THE PHONE NUMBER IS 1-800-326-2764.
2. CONTRACTOR SHALL SCHEDULE HIS OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL TRAFFIC FLOW.
3. THE EXISTING UNDERGROUND INFORMATION IS BASED ON AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UTILITIES. IF DURING CONSTRUCTION OPERATIONS, A CONTRACTOR ENCOUNTERS UTILITIES IN LOCATION OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
4. ALL CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE, OR ADJACENT PROPERTY.
5. CONTRACTOR IS TO PROTECT ALL EXISTING STRUCTURES. IF DAMAGED DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR ALL EXPENSES ASSOCIATED WITH ITS REPLACEMENT.
6. ALL POINTS OF CONNECTION OF PROPOSED IMPROVEMENTS TO EXISTING IMPROVEMENTS SHALL BE UNCOVERED AND ELEVATIONS VERIFIED BY FIELD CHECK BEFORE ANY CONSTRUCTION BEGINS.
7. REFER TO THE LATEST ODOT "CONSTRUCTION AND MATERIALS SPECIFICATIONS," FOR ADDITIONAL INFORMATION. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE LATEST ODOT SPECIFICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF THE WORK.

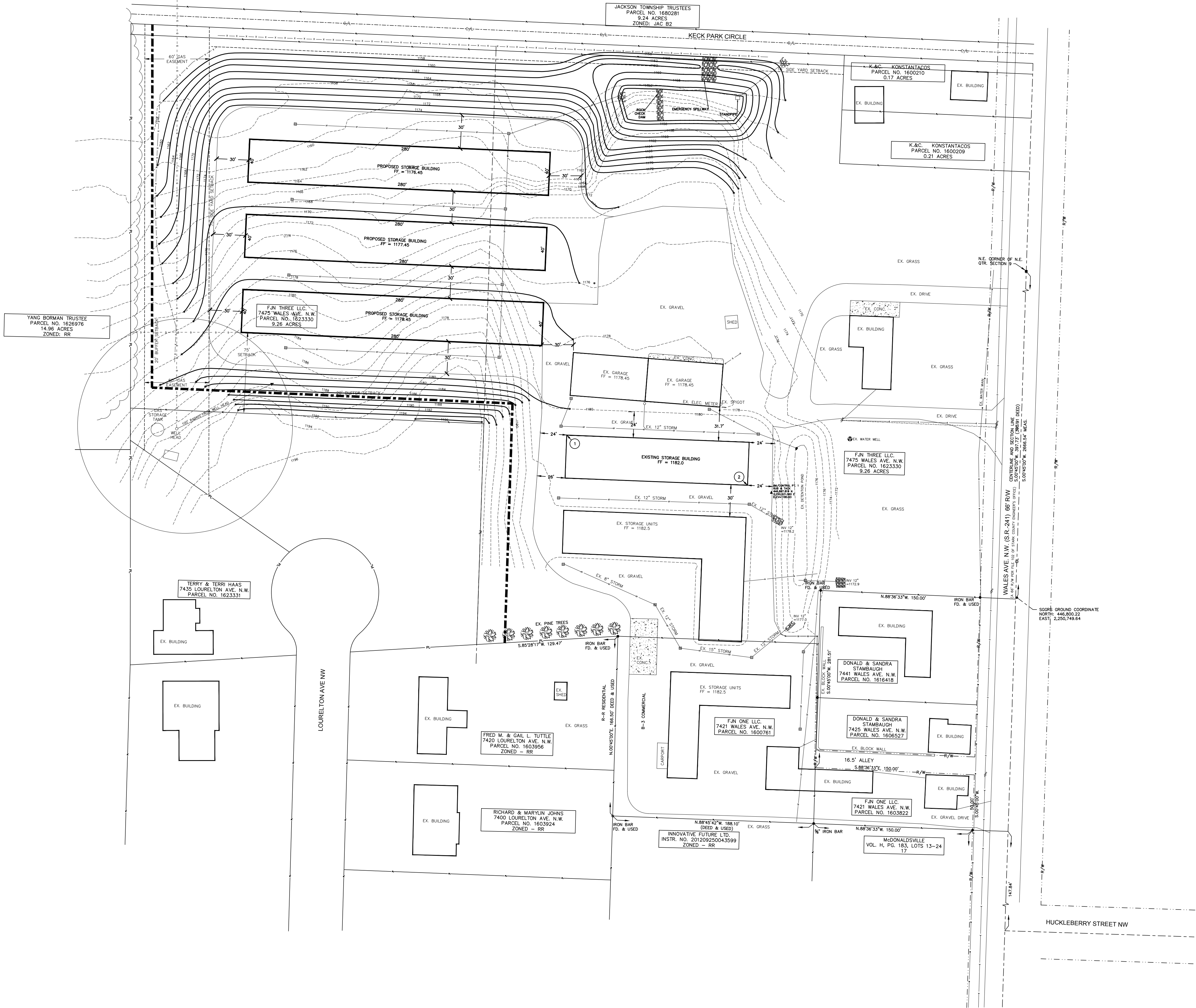
OWNER:
FRANK NICODEMO
7421 Wales Ave. NW
North Canton, Ohio 44720
(330) 418-6263
fnicodemo1@gmail.com



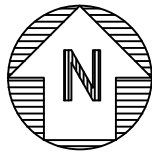
SCHEESER*BUCKLEY*MAYFIELD, INC. – CONSULTING ENGINEERS
1540 CORPORATE WOODS PARKWAY, UNIONTOWN, OHIO 44685-8797
PHONE: (330) 896-4664 FAX: (330) 896-9180



PROJECT NO: 20024
APRIL 17, 2020



OVERALL SITE PLAN



PROPERTY INFORMATION	
ADDRESS:	7475 WALES AVENUE NW NORTH CANTON, OHIO 44720
DISTRICT NAME:	JACKSON TOWNSHIP
LAND USE:	COMMERCIAL WAREHOUSE
OWNER:	FJN THREE LLC
	7421 WALES AVENUE NW
	NORTH CANTON, OHIO 44720
TAX MAP:	SECTION: 09
	QUARTER: NE
SITE ACREAGE:	9.26 AC
PARCEL NUMBER:	1623330

ZONING CHART		
	REQUIRED	PROVIDED
DISTRICT: JACKSON	B-3	
FRONT SETBACK	50'	
REAR/SIDEYARD SETBACK	75' TO RR	103'
REAR/SIDEYARD SETBACK	16' TO B2	92'

LEGEND	
---	EX CONTOUR
---	PROPOSED CONTOUR
---	EDGE OF GRAVEL
---	CHAIN LINK FENCE
---	STORM WATER LINE
---	GAS LINE
---	RIPRAP
---	PROPOSED BUILDING FOOTPRINT
---	PROPERTY LINE
---	RIGHT OF WAY
---	ZONING LINE
---	BENCH MARK/CONTROL POINT
---	STORM DRAIN
---	PROPOSED GRAVEL

STOP
Call Before
You Dig!
1-800-925-0988
Oil and Gas
Producers
Underground
Protection Service
(OGUPS)

Call TWO WORKING DAYS
BEFORE YOU DIG
OHIO UTILITIES PROTECTION SERVICE
IN OHIO - 800-362-2764
OUT OF OHIO - 216-744-5191
NON-MEMBERS MUST CALL DIRECTLY

THREE STORAGE BUILDING ADDITIONS
7475 WALES AVENUE
JACKSON TOWNSHIP
STARK COUNTY, OHIO

REVISIONS:

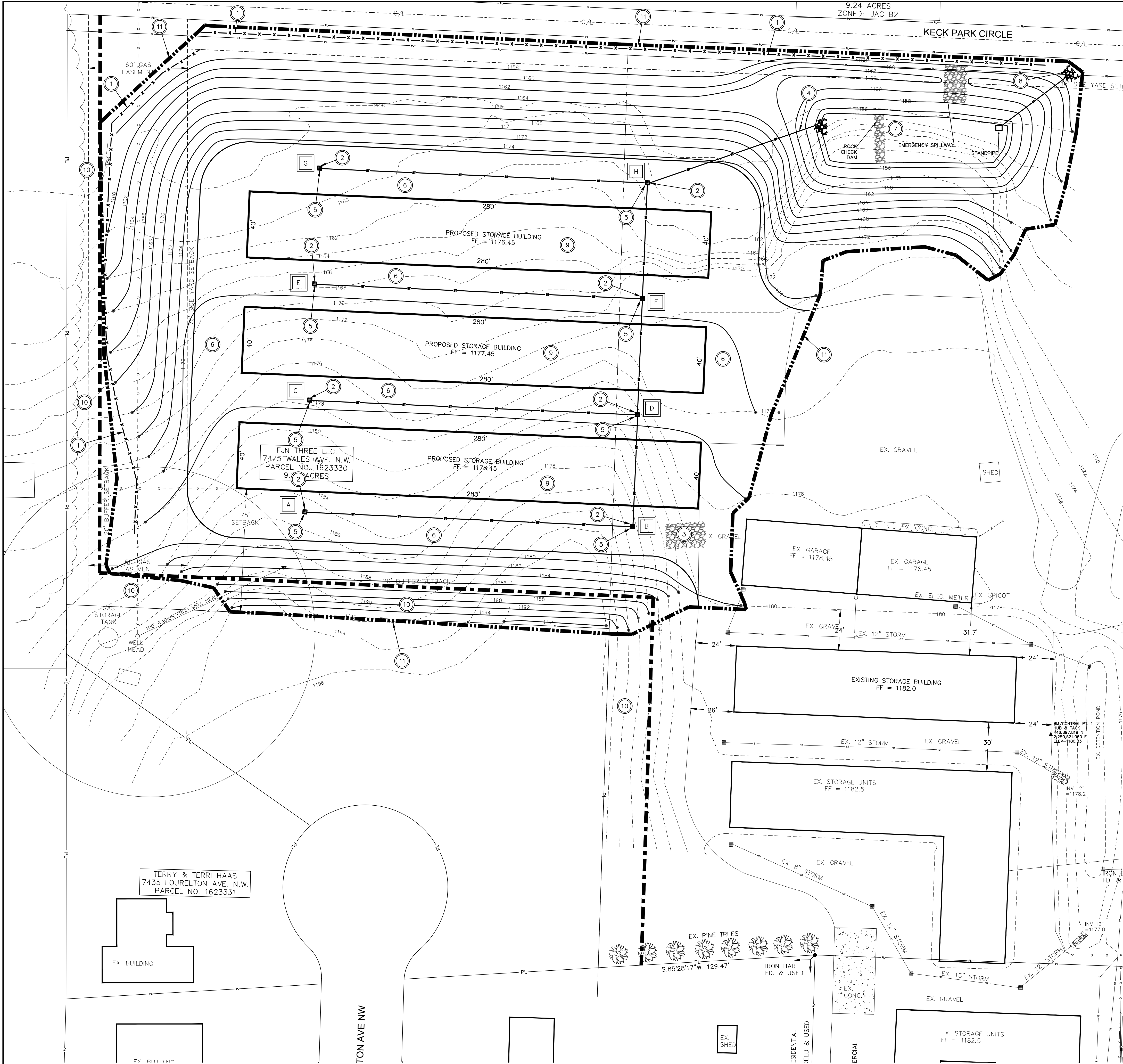
DATE: 04/17/20
DRAWN BY: C.M.W.
CHECKED BY: KMN
JOB NO.: 20024

OVERALL SITE
PLAN

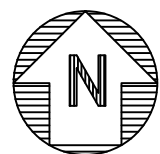
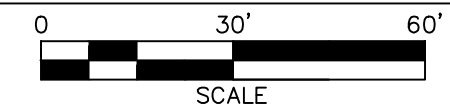
C100

**SCHAEFER
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MAYFIELD LLC**
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FAX: (330) 896-9180

STATE OF OHIO
K. M. NOBLE
E-56746
PROFESSIONAL ENGINEER
K. M. Noble
4/17/20
SIGNATURE DATE



SITE IMPROVEMENT PLAN



PLAN NOTES

1. CONTRACTORS SHALL SCHEDULE THEIR OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL TRAFFIC FLOW.
2. THE EXISTING UNDERGROUND INFORMATION AND TOPOGRAPHIC INFORMATION IS BASED ON THE PROJECT'S SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UTILITIES. IF DURING CONSTRUCTION OPERATIONS, A CONTRACTOR ENCOUNTERS UTILITIES IN LOCATION OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
3. ALL CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE, OR ADJACENT PROPERTY.
4. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF EXISTING ELEVATIONS AT CRITICAL POINTS SUCH AS APPROACHES OF DRAINAGE STRUCTURES, CURBING, ETC. VERIFICATION SHALL BE PERFORMED DURING LAYOUT STAGES AND SIGNIFICANT DISCREPANCIES REPORTED TO THE ENGINEER IMMEDIATELY.
5. CONTRACTOR SHALL CONDUCT HIS OPERATIONS SUCH THAT THE FLOW OF ALL EXISTING SEWERS AND LATERALS WILL BE MAINTAINED AT ALL TIMES.

CODED NOTES

1. INSTALL SILT FENCING PER DETAIL ON SHEET C301.
2. INSTALL INLET PROTECTION PER DETAIL ON SHEET C301.
3. CONSTRUCTION ENTRANCE.
4. INSTALL 18" STORM AND END WITH INVERT 1156.0. INSTALL 5' X 5' X 18" DEEP ODOT TYPE "C" ROCK CHANNEL PROTECTION.
5. INSTALL CATCH BASIN & ASSOCIATED STORM PIPE.
6. INSTALL 4" THICK GRAVEL DRIVE AT 30' WIDE AROUND PERIMETER OF NEW STORAGE BUILDING.
7. EXTENDED, DRY DETENTION POND. SEE DETAILS ON SHEET C200.
8. INSTALL A 12" DEEP X 10' WIDE X 10' LONG LEVEL SPREADER CONSISTING OF ODOT TYPE "B" ROCK CHANNEL PROTECTION.
9. INSTALL 40' X 280' LONG STORAGE BUILDING. EXTEND 6" RAIN LEADERS FROM DOWNSPOUTS TO ADJACENT CATCH BASIN.
10. WITHIN 20' BUFFER ZONE INSTALL A DENSE VEGETATIVE PLANTING INCORPORATING TREES AND/OR SHRUBS OF A VARIETY THAT SHALL BE EQUALLY EFFECTIVE IN WINTER AND SUMMER AND THAT WILL FORM A SIX (6) FOOT HIGH SCREEN WITHIN THREE (3) YEARS OF PLANTING. PER SECTION 411.9 IN THE JACKSON TOWNSHIP ZONING RESOLUTION.
11. LIMITS OF CLEARING / GRADING = 3.6 ACRES.

LEGEND

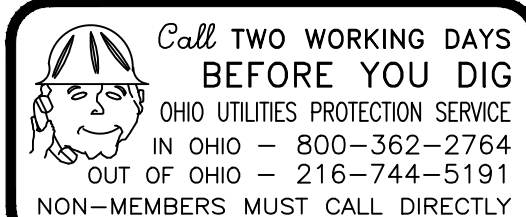
	PROPOSED CONTOURS
	CATCH BASIN
	TREE LINE

SEWER SUMMARY

A PROP. YARD BASIN "A" PROP. CASTING= 1178.2 PROP. 12" INV.(E)= 1175.7	E PROP. YARD BASIN "E" PROP. CASTING= 1176.3 PROP. 12" INV.(E)= 1173.8
B PROP. YARD BASIN "B" PROP. CASTING= 1178.2 PROP. 12" INV.(W+N)= 1174.0	F PROP. YARD BASIN "F" PROP. CASTING= 1176.3 PROP. 15" INV.(N+S)= 1172.0 PROP. 12" INV.(W)= 1172.0
C PROP. YARD BASIN "C" PROP. CASTING= 1177.3 PROP. 12" INV.(E)= 1174.8	G PROP. YARD BASIN "G" PROP. CASTING= 1175.3 PROP. 12" INV.(E)= 1172.8
D PROP. YARD BASIN "D" PROP. CASTING= 1177.3 PROP. 12" INV.(W+S)= 1173.0 PROP. 15" INV.(N)= 1173.0	H PROP. YARD BASIN "H" PROP. CASTING= 1175.3 PROP. 12" INV.(W)= 1171.0 PROP. 15" INV.(S)= 1171.0 PROP. 18" INV.(NE)= 1171.0

CONSTRUCTION SEQUENCE

1	TEMPORARY EROSION CONTROL
2	ROUGH GRADING
3	STORM SEWER
4	FINAL GRADING
5	GRAVEL
6	SEEDING AND MULCHING



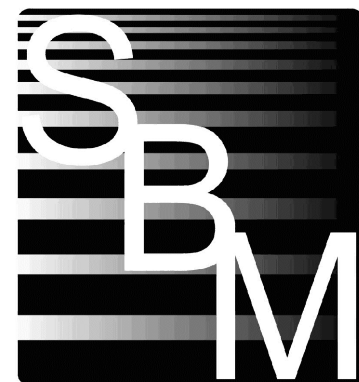
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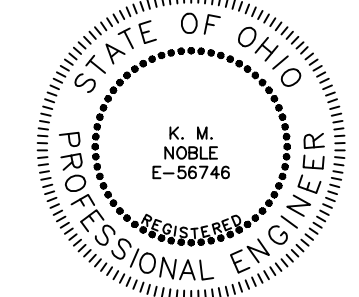
SITE
IMPROVEMENT
PLAN

C101

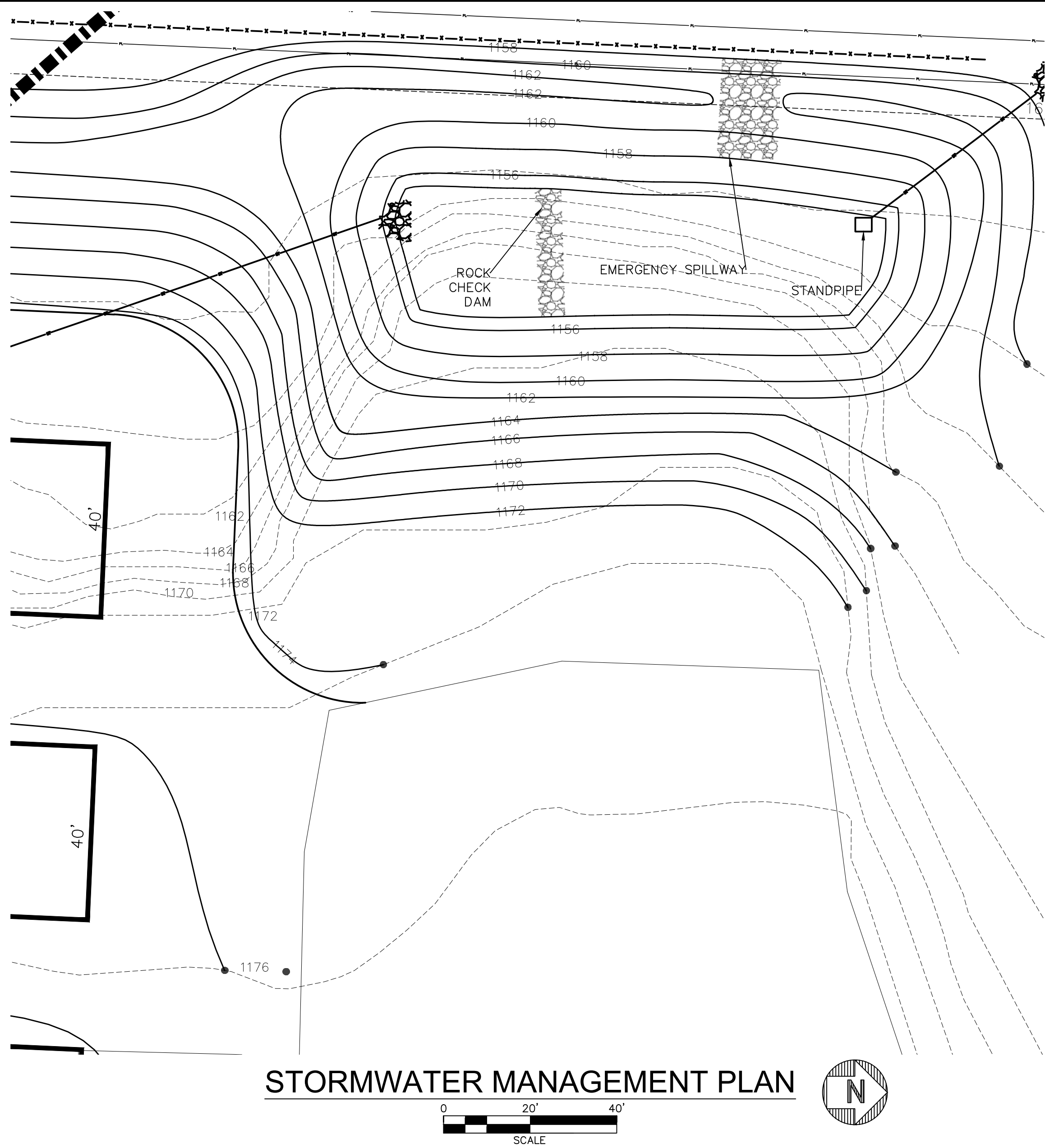


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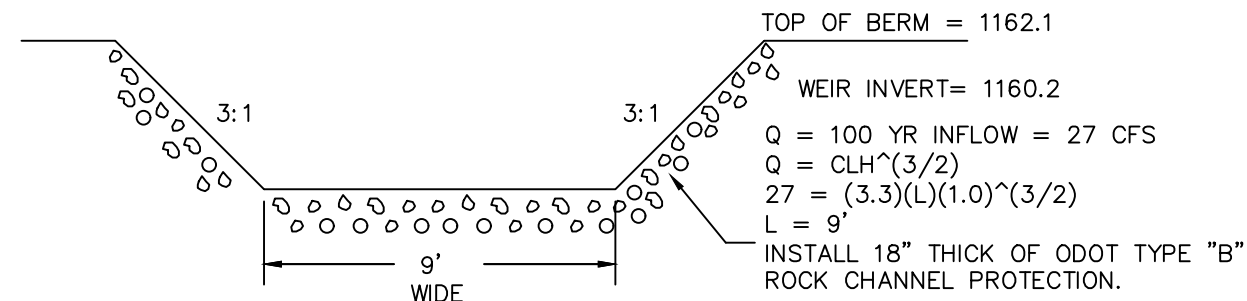


K.M. Noble 4/17/20
SIGNATURE DATE

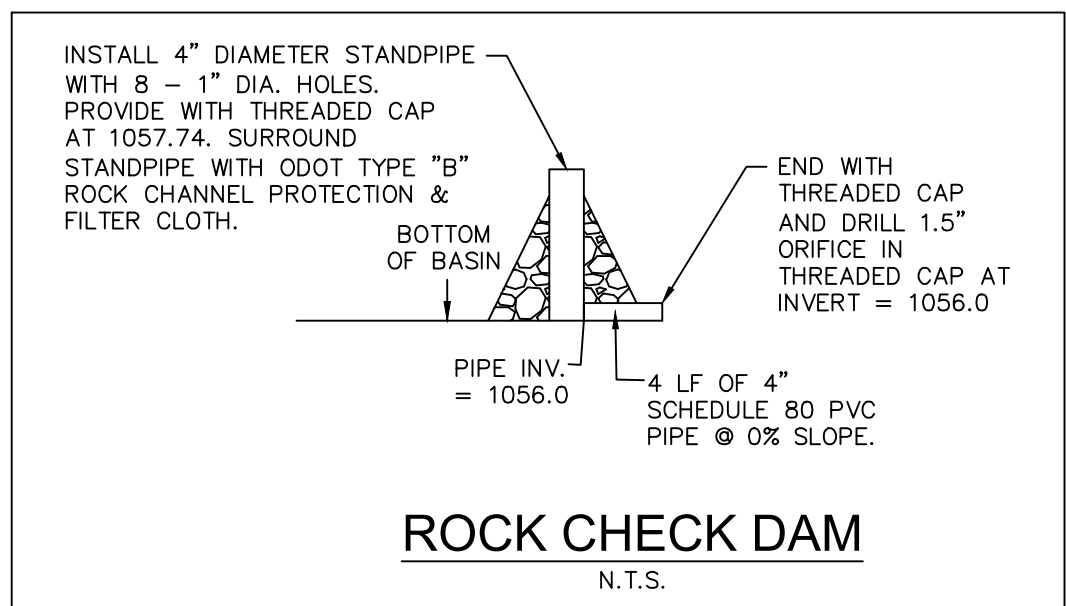


STORMWATER MANAGEMENT PLAN

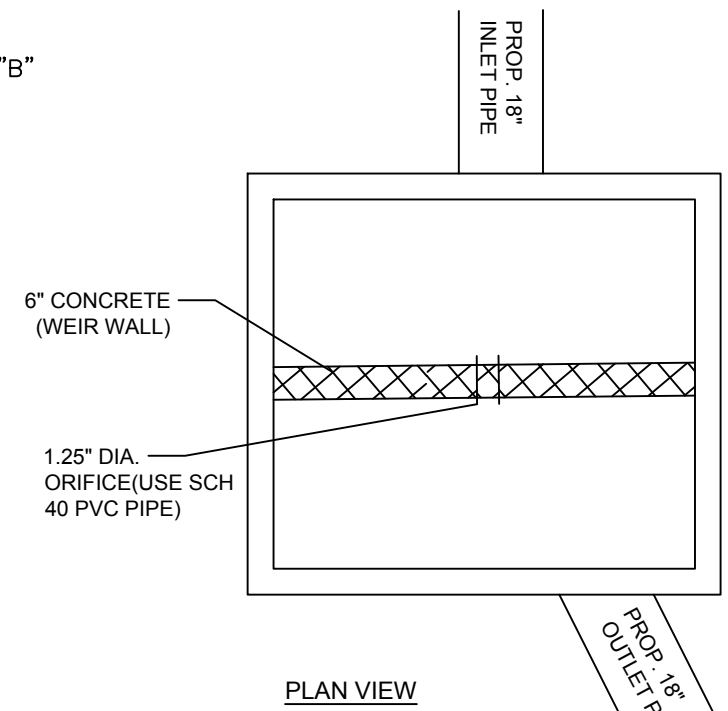
SUMMARY OF DETENTION BASIN DRAINAGE CALCULATIONS					10-YR			
STORM DESIGN FREQUENCY (YEARS)	WATER QUALITY	2-YR	5-YR	10-YR	CONSTR	25-YR	50-YR	100-YR
PRE-DEVELOPED PEAK FLOW (CFS)	1.10	1.98	3.52	4.98	4.98	7.29	9.37	11.71
POST-DEVELOPED UNCONTROLLED (CFS)	N/A	0	0	0	0	0	0	0
POST-DEVELOPED FLOW FROM BASIN (CFS)	0.60	1.48	3.16	4.46	4.46	5.98	6.86	8.33
DESIGN PEAK WSEL (FT)	1158.1	1158.4	1158.9	1159.3	1159.3	1159.8	1160.2	1160.6



EMERGENCY SPILLWAY DETAIL

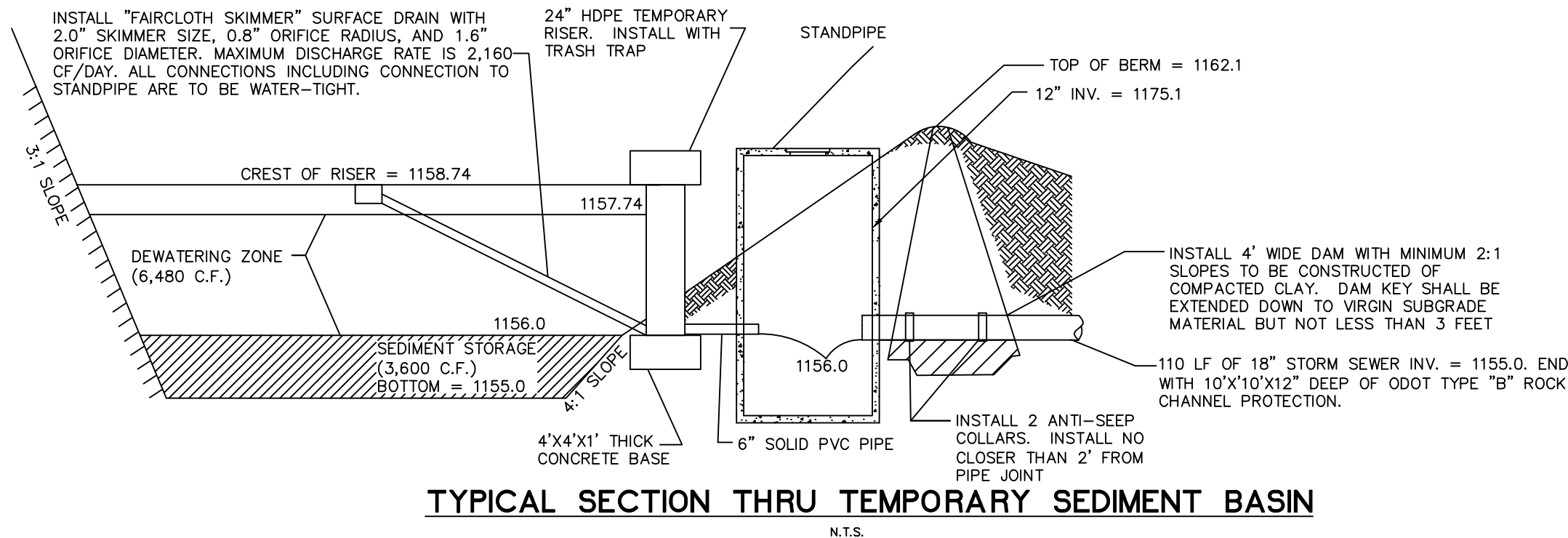


ROCK CHECK DAM

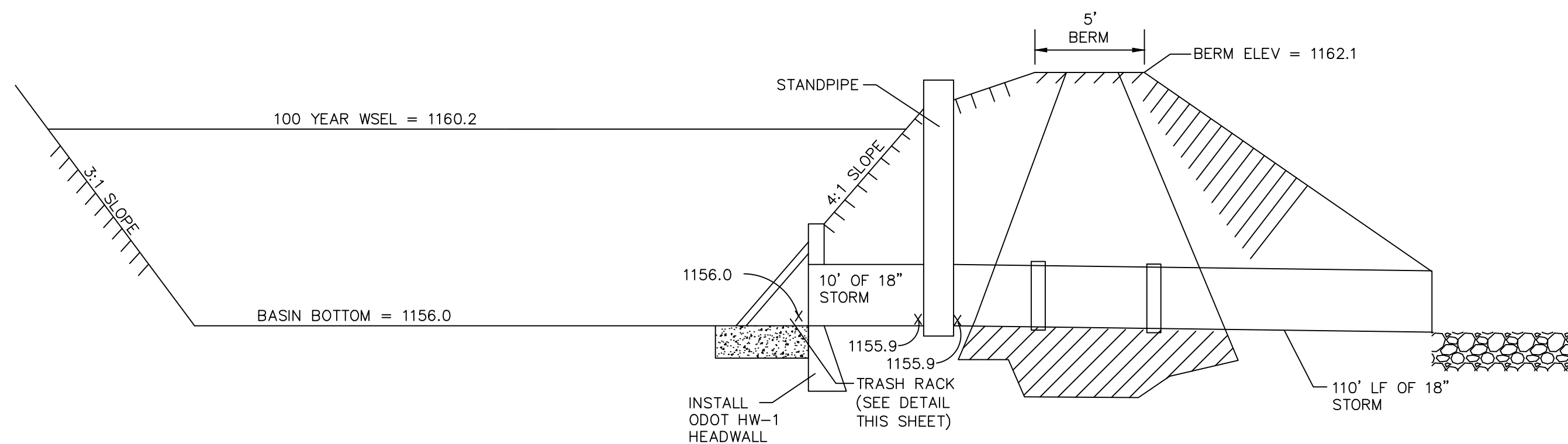


STANDPIPE DETAIL
2 X 2 BASIN

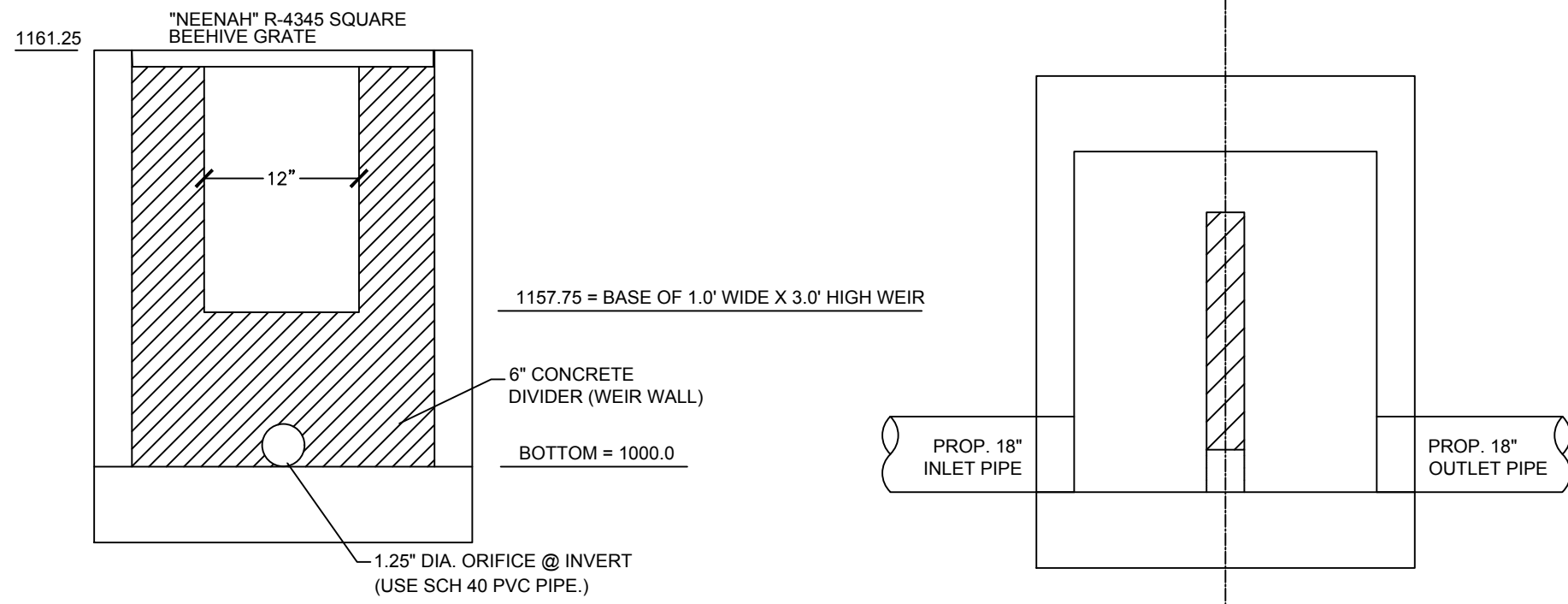
PROPOSED TEMPORARY SEDIMENT BASIN INFORMATION	
DRAINAGE AREA	= 3.1 AC.
DISTURBED AREA	= 3.6 AC.
CREST OF RISER PIPE	= 1158.74
TOP OF BANK	= 1162.1
DEWATERING DRAWDOWN DESIGN TIME	= 72 HOURS
DEWATERING ZONE REQUIRED VOLUME	= 3.60 AC. X 1800 CF/AC = 6,480 CF
SEDIMENT ZONE REQUIRED VOLUME	= 3.60 AC. X 1000 CF/AC = 3,600 CF



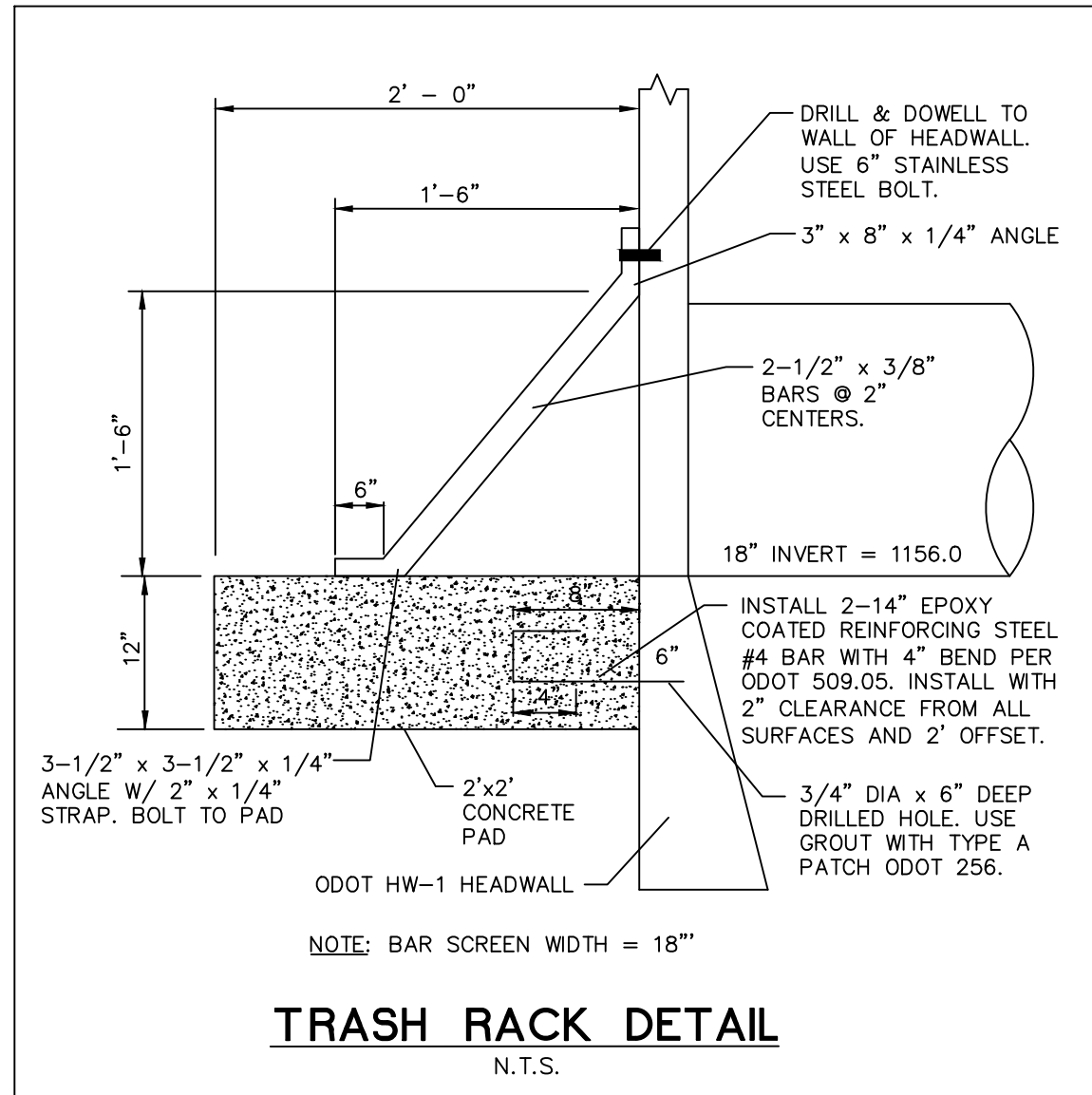
TYPICAL SECTION THRU TEMPORARY SEDIMENT BASIN



CROSS SECTION "A-A" THRU POST CONSTRUCTION EXTENDED DRY DETENTION FACILITY



SECTION "A"-A"



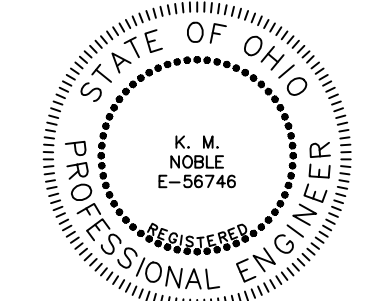
TRASH RACK DETAIL

- TEMPORARY SEDIMENT BASIN CONSTRUCTION SEQUENCE NOTES:
- AFTER THE INSTALLATION OF THE PROJECT'S TEMPORARY CONSTRUCTION ENTRANCE AND SILT FENCE, CLEAR AND GRUB AREA WITHIN LIMITS OF EXTENDED DRY POND AND WATER QUALITY POND. STRIP AREA OF ANY VEGETATION AND ROOT MATS.
 - SEDIMENT BASIN SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
 - OVER EXCAVATE BASIN TO BOTTOM OF 1155.00 TO PROVIDE SEDIMENT STORAGE AREA. INSTALL A 4"x4" STAKE IN THE CENTER OF THE BASIN WITH TOP OF STAKE = 1156.00.
 - CONSTRUCT OUTER BASIN EMBANKMENTS FOR WATER QUALITY POND AS SHOWN WITH STANDPIPE, INLET & OUTLET PIPES, EMERGENCY SPILLWAY, AND DAM KEY. SEE DETAILS THIS SHEET.
 - THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 - ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER ON INTERIOR SIDE OF PONDS.
 - GEOTEXTILE SHALL BE PLACED OVER THE BOTTOM AND SLOPES OF THE EMERGENCY SPILLWAY. GEOTEXTILE SHALL CONTINUE DOWNSTREAM OF THE EMBANKMENT TO FORM AN APRON ON THE SURROUNDING GROUND. TO PREVENT RUNOFF FROM FLOWING UNDER THE GEOTEXTILE, THE SECTIONS PLACED NEAREST THE FRONT SHALL OVERLAP FOLLOWING SECTIONS. SECTION OF GEOTEXTILE SHALL OVERLAP AT LEAST 2 FEET.
 - INSTALL SKIMMER CONNECTION AT BASE OF STANDPIPE.
 - SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN THE SEDIMENT HAS ACCUMULATED TO THE TOP OF THE STAKE. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - THE BASIN SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
 - TEMPORARY SEEDING & MULCH SHALL BE ESTABLISHED ON ALL NON-SUBMERGED AREAS OF THE SEDIMENT BASIN. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.
 - AFTER THE CONSTRUCTION ASSOCIATED WITH THESE PLANS ARE COMPLETED AND THE DRAINAGE AREA IS STABILIZED, REMOVE THE TEMPORARY SKIMMER, ACCUMULATED SEDIMENT AND SEDIMENT DEPTH INDICATOR STAKE. SEED AND MULCH ANY DENuded AREAS IN BASIN. INSTALL ROCK CHECK DAM AND TRASH RACK WITH OUTLET PIPE.
 - BASIN IS TO BE CONVERTED INTO A POST - CONSTRUCTION WATER QUALITY FACILITY.



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STORMWATER
MANAGEMENT
PLAN

C200

STORM WATER POLLUTION PLAN – DURING CONSTRUCTION

EROSION SEDIMENT CONTROL AND CONSERVATION NARRATIVE

DESCRIPTION: THE CONSTRUCTION ACTIVITIES ON THIS SITE WILL RESULT IN STORAGE BUILDING ADDITIONS.

EROSION AND SEDIMENTATION CONTROL: EROSION AND SEDIMENT CONTROLS TO BE INSTALLED SHALL CONFORM TO THE WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREA'S HANDBOOK BY THE SOIL CONSERVATION SERVICE IN OHIO AND ARE TO BE HANDLED AS FOLLOWS:

SEDIMENT CONTROL PROGRAM – PHASE I

1. PRIOR TO CONSTRUCTION, ESTABLISH THE LIMITS OF CLEARING AND GRADING AS MARKED.
2. CLEAR AND GRUB THE NECESSARY AREAS FOR CONSTRUCTION OF THE TEMPORARY CONSTRUCTION ENTRANCE. INSTALL SILT FENCES AND TEMPORARY SEDIMENT BASINS.
3. INSTALL UTILITIES.
4. ONCE THE UTILITIES HAVE BEEN INSTALLED AND PARKING LOTS AND DRIVES ARE BROUGHT NEAR FINAL GRADE IN A MANNER SUCH THAT THE STORM SEWER IS FUNCTIONAL, INSTALL INLET PROTECTION.
5. AFTER CONSTRUCTION OPERATIONS HAS BEEN COMPLETED AND ALL DISTURBED AREAS HAVE BEEN STABILIZED, MECHANICAL SEDIMENT CONTROL SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION.

ADDITIONAL SEDIMENT CONTROL NOTES

1. CONSTRUCTION ACCESS ROUTES:
MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT BY VEHICLE TRACKING ONTO SURFACES WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROL ONTO PUBLIC ROADS. IF SOIL IS TRANSPORTED ONTO PUBLIC ROAD SURFACE, THE ROADS SHALL BE CLEANED IMMEDIATELY. SOIL SHALL BE REMOVED FROM PAVED SURFACES BY SHOVELING OR SWEEPING. STREET WASHING SHALL BE UTILIZED ONLY AFTER SOIL HAS BEEN REMOVED BY SHOVELING OR SWEEPING. THE CONTRACTOR SHALL CONSTRUCT A SINGLE ACCESS DRIVE FOR HIS USE DURING CONSTRUCTION. THE DRIVE SHALL BE 50' LONG x 20' WIDE x 18" DEEP OF NO. 1 AND NO. 2 STONE. THE DRIVE SHALL REMAIN IN PLACE DURING CONSTRUCTION, AND THE CONTRACTOR SHALL ADD STONE AS REQUIRED TO MAINTAIN ITS INTEGRITY.

NOTES:

1. SEDIMENT PONDS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.
2. CAST IRON CATCH BASIN, GRATES AND INLET COVERS SHALL BE SUPPLIED WITH "DUMP NO WASTE, DRAINS TO WATERWAYS" CAST IN A VISIBLE LOCATION.
3. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
4. OFFSITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLANS.
5. ALL EROSION AND SEDIMENTATION CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (1996)
6. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
7. WATER QUALITY DESIGN WITHIN THE SITE'S STORMWATER MANAGEMENT FACILITY IS UTILIZED TO ENHANCE WATER QUALITY RUNOFF. THE STORMWATER MANAGEMENT FACILITY INCLUDES ORIFICE AND WEIR CONTROLS TO CONTROL OUTLET DISCHARGE RATES AND TO REDUCE OVERALL STORM HYDROGRAPH PEAKS.
8. EROSION CONTROL BLANKETS WITH MATTING IS TO BE USED ON DITCHES GREATER THAN 1.5% AND ON ALL OTHER SLOPES GREATER THAN 6% GRADE.
9. WINTERIZATION – ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 14 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
10. THERE SHALL BE NO SEDIMENT–LADEN DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. IT MUST PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EFFECTIVE SEDIMENT CONTROL DEVICE PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE.
11. ANY AREAS AT FINAL GRADE OR THAT LIE DORMANT FOR ONE YEAR OR MORE REQUIRE PERMANENT SEEDING WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE (REFER TO OHIO'S "RAINWATER AND LAND DEVELOPMENT" MANUAL). IN ADDITION, ANY AREAS WITHIN 50 FEET OF A STREAM AND AT FINAL GRADE REQUIRE EROSION CONTROLS WITHIN 2 DAYS OF REACHING FINAL GRADE. NOTE THAT A 70% VEGETATIVE DENSITY IS REQUIRED ON ALL DISTURBED SOIL AREAS FOR STABILIZATION. ANY OTHER AREAS AT FINAL GRADE REQUIRES PERMANENT SEEDING WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.
12. CONSTRUCTION PROJECTS THAT ARE TO BE DORMANT OVER THE WINTER MONTHS MUST BE STABILIZED USING SEEDING. SEEDING MUST BE COMPLETED IN TIME SO THAT ENOUGH HAS SPROUTED BEFORE THE GROWING SEASON ENDS.
13. SOIL THAT IS STOCKPILED TEMPORARILY ON SITE FOR A PERIOD GREATER THAN 7 DAYS IS TO BE SEEDED AND THE PERIMETER SURROUNDED WITH SILT FENCE. THE DRIVE IS TO BE STABILIZED WITH BASE STONE AS SOON AS GRADING ALLOWS.
14. ALL TRENCH DEWATERING IS TO BE DISCHARGED INTO THE PROJECT'S SEDIMENT BASIN.
15. ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR REQUIRES TEMPORARY SEEDING WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.

CERTIFICATION

I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERTY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGED THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE DATE RESPONSIBLE ACTIVITY

SIGNATURE DATE RESPONSIBLE ACTIVITY

SIGNATURE DATE RESPONSIBLE ACTIVITY

THIS STATEMENT MUST BE SIGNED AND DATED BY ALL APPLICABLE PARTIES WITH INDICATION OF WHAT ACTIVITY THEY ARE RESPONSIBLE FOR.

STORMWATER QUALITY BEST MANAGEMENT PRACTICES & MAINTENANCE PLAN – POST CONSTRUCTION

THE PRACTICES LISTED IN THIS PLAN MUST BE MAINTAINED ON A REGULAR BASIS IN ORDER TO FUNCTION CORRECTLY. THE FOLLOWING OUTLINES A LONG–TERM MAINTENANCE PLAN FOR EACH PRACTICE INSTALLED IN THIS DEVELOPMENT.

THE OWNER SHALL FOLLOW THIS PLAN AND ANY OTHER REQUIREMENTS OF THE M54 TO THE GREATEST EXTENT PRACTICABLE. MAINTENANCE AND INSPECTIONS MUST BE RECORDED AND KEPT ON FILE. THE OWNER IS RESPONSIBLE FOR SECURING & PAYING FOR THE INSPECTIONS THAT FOLLOW. OWNER IS ALSO RESPONSIBLE FOR ANY MAINTENANCE THAT IS REQUIRED INCLUDING SEDIMENT REMOVAL.

BEST MANAGEMENT PRACTICES (BMPs) TO BE MAINTAINED ARE:

- EXTENDED DRY DETENTION FACILITY
- WATER QUALITY POND
-

POST–CONSTRUCTION MAINTENANCE AND INSPECTION REQUIREMENTS:

THE OWNER IS TO HAVE THE DETENTION POND AND ASSOCIATED WATER QUALITY POND INSPECTED ANNUALLY BY A PROFESSIONAL ENGINEER REGISTERED IN OHIO.

MAINTENANCE AND INSPECTIONS FOR EXTENDED DETENTION/RETENTION PONDS:

EARTHEN EMBANKMENT:

THE EMBANKMENT CREST MUST BE INSPECTED AT LEAST EVERY SIX MONTHS FOR ANY SIGNS OF SETTLEMENT, MISALIGNMENT, OR CRACKING. IF ANY OF THESE CONDITIONS APPEAR TO EXIST, THE M54 AND THE DESIGN ENGINEER MUST BE INFORMED.

THE EMBANKMENT SLOPES MUST BE INSPECTED AT LEAST EVERY SIX MONTHS FOR ANY SIGNS OF SETTLEMENT, MISALIGNMENT, BULGES AND SEEPAGE FROM THE DOWNSTREAM TOE OF SLOPE. IF ANY OF THESE CONDITIONS APPEAR TO EXIST, THE M54 AND THE DESIGN ENGINEER MUST BE INFORMED.

THE EMBANKMENT SLOPES SHOULD ALSO TO BE INSPECTED FOR ADEQUATE GROUND COVER, EROSION, AND RODENT HOLES. IF THE EXISTING GROUND COVER IS NOT ADEQUATE (A MINIMUM OF 80% COVERAGE), ADDITIONAL SEEDING AND THE NECESSARY AMENDMENTS (I.E. LIME, FERTILIZER, ETC.) SHOULD BE APPLIED. IF EROSION IS EVIDENT, THE M54 AND THE DESIGN ENGINEER MUST BE INFORMED. IF THE CONDITION IS CRITICAL, THE SERVICES OF A SPECIALIST IN EROSION AND SEDIMENT CONTROL MAY BE REQUIRED. IF RODENT HOLES ARE PRESENT, THE LOCAL ANIMAL CONTROL AGENCY SHOULD BE CONTACTED. THE HOLED MUST BE FILLED AND COMPACTED AFTER THE ANIMALS ARE REMOVED.

DEBRIS AND LITTER REMOVAL:

DEBRIS AND LITTER WILL ACCUMULATE IN THE BASIN. SUCH MATERIAL SHOULD BE REMOVED PERIODICALLY.

2) WATER QUALITY POND:

SEE CHART BELOW.

Design Feature	Frequency of Inspection (minimum)	What to Look For
Sources of Inflow (all)	Annually	• For open channels – ensure there is no excessive erosion of the channel (e.g. headcutting, bank erosion, etc...) • For storm sewers – check the condition of the pipe, headwall and outlet protection (e.g. rip rap apron)
Water Quality Pond	• Monitor annually • Survey the elevation of accumulated sediments at least every 5-years	• Monitor the accumulation of sediment and corresponding loss of storage capacity • To return pond to it's original dimensions, dredging must occur when 50% or more of its original storage volume is lost • If the pond comprises any portion of the required volume for sediment storage and/or reduced infiltration capacity (20% of the WQv), see comments in regard to dredging the "Extended, Dry Detention Pond" • Ensure there is an appropriate location to dispose of dredged sediments on or off the site
Water Quality Orifice	Every two months	• Ensure there are no blockages of the orifice caused by trash and debris build-up.
Standpipe	Annually	• Ensure there are no blockages caused by trash and debris build-up
Outlet Pipe/Channel	Annually	• Storm sewers – check the condition of the pipe, headwall and outlet protection • Channel – ensure there is no erosion of the channel bottom, failure of side slopes, or any obstructions
Extended Dry Detention Pond	• Monitor annually • Survey the elevation of accumulated sediments at least every 15-years.	• Monitor the accumulation of sediment and corresponding loss of storage capacity • To return the main pool area to its original dimensions, dredging must occur when the required volume for sediment storage and/or reduced infiltration capacity (20% of the WQv) is lost. This includes any sediment storage capacity that is part of the water quality pond. • Ensure there is an appropriate location to dispose of dredged sediments on or off the site
Inside and outside	• Mow at least once	• Ensure adequate vegetative cover with

slopes	each year during the growing season • Monitor annually	no rills and gullies or slumping of side slopes
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The responsible party of each post-construction storm water quality best management practice (BMP) must complete an annual inspection and submit a corresponding annual report to the City Engineer by June 1st of each year. At a minimum, this report shall include the following items:

1. Vicinity sketch showing general area where the best management practice (BMP) is located
2. A summary of all maintenance activities that have taken place since the previous year's annual inspection
3. Current photos of and a description of the condition of each applicable design feature. At a minimum, this should include the access easement, all sources of inflow, the water quality orifice, secondary outlet, outlet structure, emergency spillway, outlet pipe/channel, main pool area, and inside and outside slopes.
4. Indication of any deviations from the original approved plan for the BMP
5. Identification of any improvements necessary to restore original design function
6. Maintenance activities that will be undertaken in the next 6 months
7. Any other items requested by the City Engineer
8. Identification and contact information of the entity responsible for maintenance of the BMP
9. Identification, contact information and seal with original signature and date of the person responsible for preparing the annual report

GENERAL NOTES FOR SEDIMENT POLLUTANT CONTROLS

1. PERIMETER SEDIMENT CONTROLS (I.E. SEDIMENT TRAPS, SILT FENCE, COMPOST SOCKS, COMPOST BERMS, ETC...)
2. NO EROSION AND SEDIMENT CONTROL BMPs SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS AND WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, UNLESS THEIR REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.
3. THERE SHALL BE NO SEDIMENT–LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUNDWATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT TRAP OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT–LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
4. STREETS DIRECTLY ADJACENT TO CONSTRUCTION ENTRANCES AND RECEIVING TRAFFIC FROM THE DEVELOPMENT AREA, SHALL BE CLEANED DAILY TO REMOVE SEDIMENT TRACKED OFF–SITE. IF APPLICABLE, THE CATCH BASINS ON THESE STREETS NEAREST TO THE CONSTRUCTION ENTRANCES SHALL ALSO BE CLEANED WEEKLY. BASED ON SITE CONDITIONS, PRACTICES TO CONTROL OFF–SITE TRACKING AND DUST.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, TO INSPECT ALL CONTROLS ON THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY–FOUR (24) HOURS AFTER ANY STORM EVENT GREATER THAN ONE–HALF INCH OF RAIN PER TWENTY–FOUR (24) HOUR PERIOD. WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMPs, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - a. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT–SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE (3) DAYS OF THE INSPECTION. SEDIMENT–SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN TEN (10) DAYS OF THE INSPECTION.
 - b. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AS DETAILED IN THE SWP3 AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED; THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN (10) DAYS OF THE INSPECTION.
 - c. WHEN PRACTICES DEPICTED ON THE SWPP ARE NOT INSTALLED: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN (10) DAYS FROM THE DATE OF INSPECTION. IF THE INTERNAL INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.
6. THE OWNER SHALL MAINTAIN FOR THREE (3) YEARS FOLLOWING FINAL STABILIZATION THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTIONS, THE DATES OF INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3, AND INFORMATION ON ANY INCIDENTS OF NON–COMPLIANCE DETERMINED BY THESE INSPECTIONS.
7. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH – MOVING ACTIVITY. ADDITIONAL PRACTICES SHALL BE IMPLEMENTED AT THE CONTRACTOR'S EXPENSE.
8. NO STRUCTURAL SEDIMENT CONTROLS (E.G. SILT FENCE, SEDIMENT TRAPS, ETC.) SHALL BE USED IN A WATER RESOURCE OR WETLAND, UNLESS THEIR USE IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.
9. SOIL STOCKPILES, TOPSOIL OR OTHERWISE, SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDED AND/OR MULCHED IMMEDIATELY.
10. ON–SITE PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO COMPLY WITH APPLICABLE REGULATIONS REGARDING FUGITIVE DUST EMISSIONS, INCLUDING OBTAINING NECESSARY PERMITS FOR SUCH EMISSIONS. THE CONSTRUCTION ACTIVITIES MAY REQUIRE DUST CONTROLS INCLUDING, BUT NOT LIMITED TO, THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TARPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

STORMWATER MANAGEMENT NOTES

PRIOR LAND USE – COMMERCIAL
SOILS DESCRIPTION – "c" TYPE: WOOSTER, LURAY, RAVENNA

OHIO EPA GENERAL PERMIT

SITE AREA: 9.3 ACRES

WEIGHTED
POST–CONSTRUCTION
RUNOFF COEFFICIENT:

DESCRIPTION	AREA (AC)	CN#
GRASS AREA ("c" SOILS)	0.90	79
IMPERVIOUS AREA	2.70	88
TOTAL	3.60	93

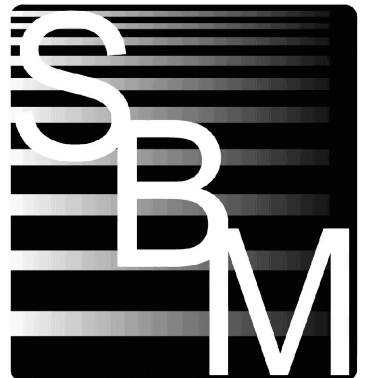
WEIGHTED
PRE–CONSTRUCTION
RUNOFF COEFFICIENT:

DESCRIPTION	AREA (AC)	CN#
WOODS	3.60	73
TOTAL	3.60	73

PRE DEV IMPERVIOUS AREA: 2.0 ACRES
PERCENT PRE DEV IMPERVIOUS: 22%
POST DEV IMPERVIOUS AREA: 4.2 ACRES
PERCENT IMPERVIOUS: 45%
PROPOSED DISTURBED AREA: 3.1 ACRES
RECEIVING STREAM: UNNAMED STREAM
ESTIMATED START DATE: JUNE 2020
ESTIMATED COMPLETION DATE: MAY 2021

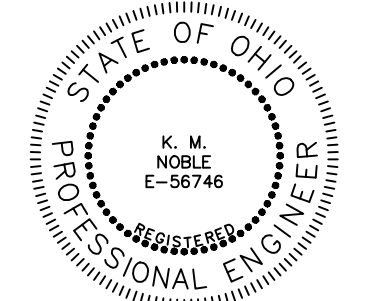
GENERAL NOTES FOR NON – SEDIMENT POLLUTANT CONTROLS

1. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. THE INDIVIDUAL WHO MANAGES THE DAY–TO–DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR ENSURING ALL FORMS OF WASTE ARE PROPERLY DISPOSED OF.
2. CONTAMINATED SOILS FROM REDEVELOPMENT SITES SHALL BE DISPOSED OF PROPERLY. RUNOFF FROM CONTAMINATED SOILS SHALL NOT BE DISCHARGED FROM THE SITE. PROPER PERMITS MUST BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.
3. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.
4. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. ANY AND ALL WASTE MATERIALS (SOLID, HAZARDOUS, CONSTRUCTION & DEMOLITION, SANITARY, TOXIC, CONTAMINATED SOILS, ETC.) GENERATED AT THE SITE SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL RULES/REGULATIONS. ON–SITE STORAGE CONTAINERS SHALL BE COVERED AND NOT LEAKING. IT IS PROHIBITED TO BURN, BURY OR POUR OUT ONTO THE GROUND OR INTO THE STORM SEWERS ANY SOLVENTS, PAINTS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND ANY OTHER SUCH TOXIC OR HAZARDOUS MATERIALS OR WASTES.
5. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
6. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT WITH A MINIMUM CAPACITY EQUAL TO 110% OF THE VOLUME OF ALL CONTAINERS IN A STORAGE AREA SHALL BE PROVIDED FOR ALL FUEL/LIQUID STORAGE TANKS AND DRUMS.
7. ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.
8. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
 - a. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
 - b. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE
 - c. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
 - d. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
 - e. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
 - f. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.
9. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN–UP:
 - a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN–UP WILL BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
 - b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY DESIGNATED FOR THIS PURPOSE.
 - c. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - d. THE SPILL AREA WILL BE KEPT WELL–VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
 - e. SPILLS OF TOXIC OR HAZARDOUS MATERIALS WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
 - f. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL OF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
 - g. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY–TO–DAY OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON SITE.



**SCHEESER
BUCKLEY
MAYFIELD LLC**
**CONSULTING
ENGINEERS**

1540 CORPORATE WOODS PARKWAY
UNIONTOWN, OHIO 44685–6797
PHONE: (330) 896–4664
FAX: (330) 896–9180



K. M. Noble 4/17/20
SIGNATURE DATE

THREE STORAGE BUILDING ADDITIONS
7475 WALES AVENUE
JACKSON TOWNSHIP
STARK COUNTY, OHIO

REVISIONS:

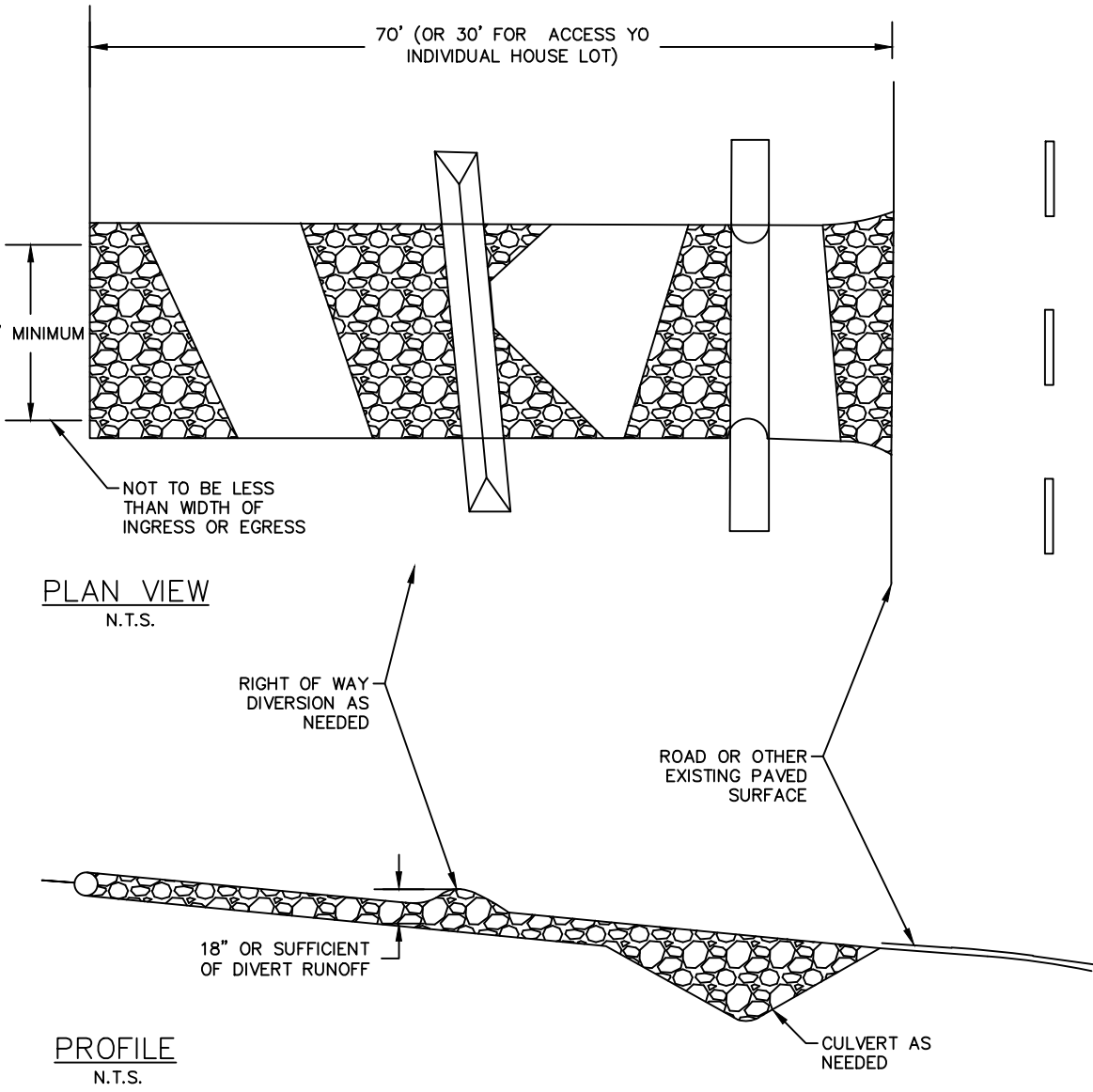
DATE: 04/17/20
DRAWN BY: C.M.W.
CHECKED BY: KMN
JOB NO.: 20024

EROSION
CONTROL
NARRATIVE

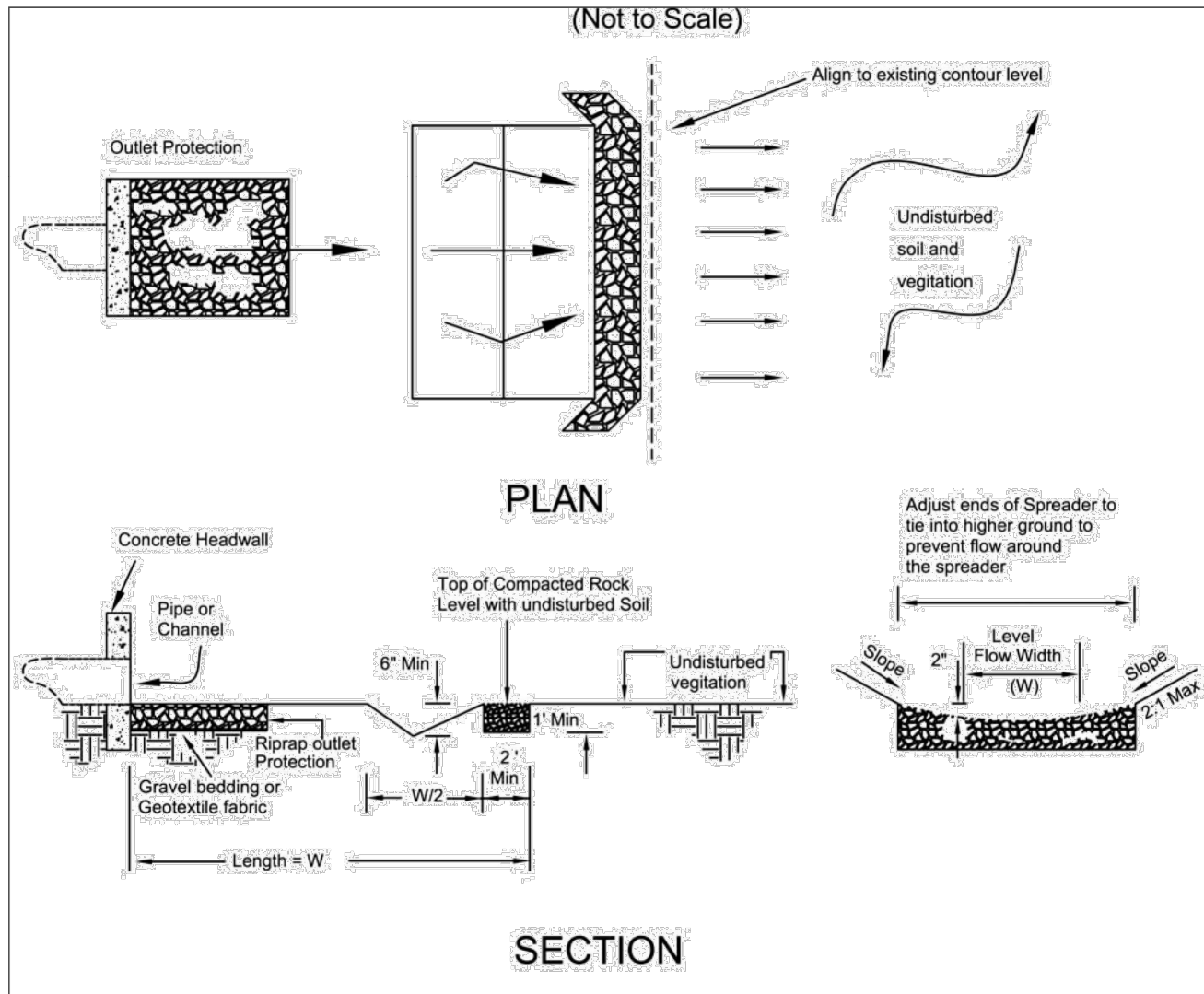
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STABILIZED CONSTRUCTION ENTRANCE

- INSTALLATION:
1. ODOT #2 (1.2"-2.5") STONE OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT A MINIMUM 6-INCH THICKNESS FOR LIGHT DUTY USE OR AT LEAST 10-INCH THICKNESS FOR HEAVY-DUTY USE.
 2. THE ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS (30 FT MINIMUM ON A SINGLE RESIDENTIAL LOT, 70 FT MINIMUM ELSEWHERE).
 3. A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS
- | | 200 LBS. |
|---------------------------|---------------|
| MINIMUM TENSILE STRENGTH | 200 LBS. |
| MINIMUM PUNCTURE STRENGTH | 80 PSI. |
| MINIMUM TEAR STRENGTH | 50 LBS. |
| MINIMUM BURST STRENGTH | 320 PSI. |
| MINIMUM ELONGATION | 20 % |
| EQUIVALENT OPENING SIZE | EOS < 0.6 MM |
| PERMEABILITY | 1x10-3 CM/SEC |
4. IF NEEDED, A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OUT ONTO PAVED SURFACES.
 5. IF NEEDED, A WATER BAR SHALL BE CONSTRUCTED TO PREVENT SURFACE WATER FROM FLOWING ALONG THE LENGTH OF THE ENTRANCE OUT ONTO PAVED SURFACES.
- MAINTENANCE:
1. TOP DRESS WITH ADDITIONAL STONE AS SITE CONDITIONS DEMAND.
 2. REMOVE MUD TRACKED ONTO PUBLIC STREETS IMMEDIATELY VIA SKAPING OR SWEEPING.
 3. ENSURE THE ENDS OF THE TEMPORARY CULVERT PIPE (IF UTILIZED) ARE NOT BLOCKED AND THAT THE PIPE IS FREE OF DEBRIS THROUGHOUT.
- REMOVAL:
1. THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.
 2. PULL OUT ALL CONSTRUCTION ENTRANCE MATERIAL AND PROPERLY DISPOSE OF OFF-SITE. STONE CAN BE BLENDED INTO THE SURROUNDING LANDSCAPE AS SITE CONDITIONS ALLOW.
 3. RE-GRADE THE AREA AS NECESSARY AND ESTABLISH VEGETATION ON ANY RESULTING DISTURBED AREAS.



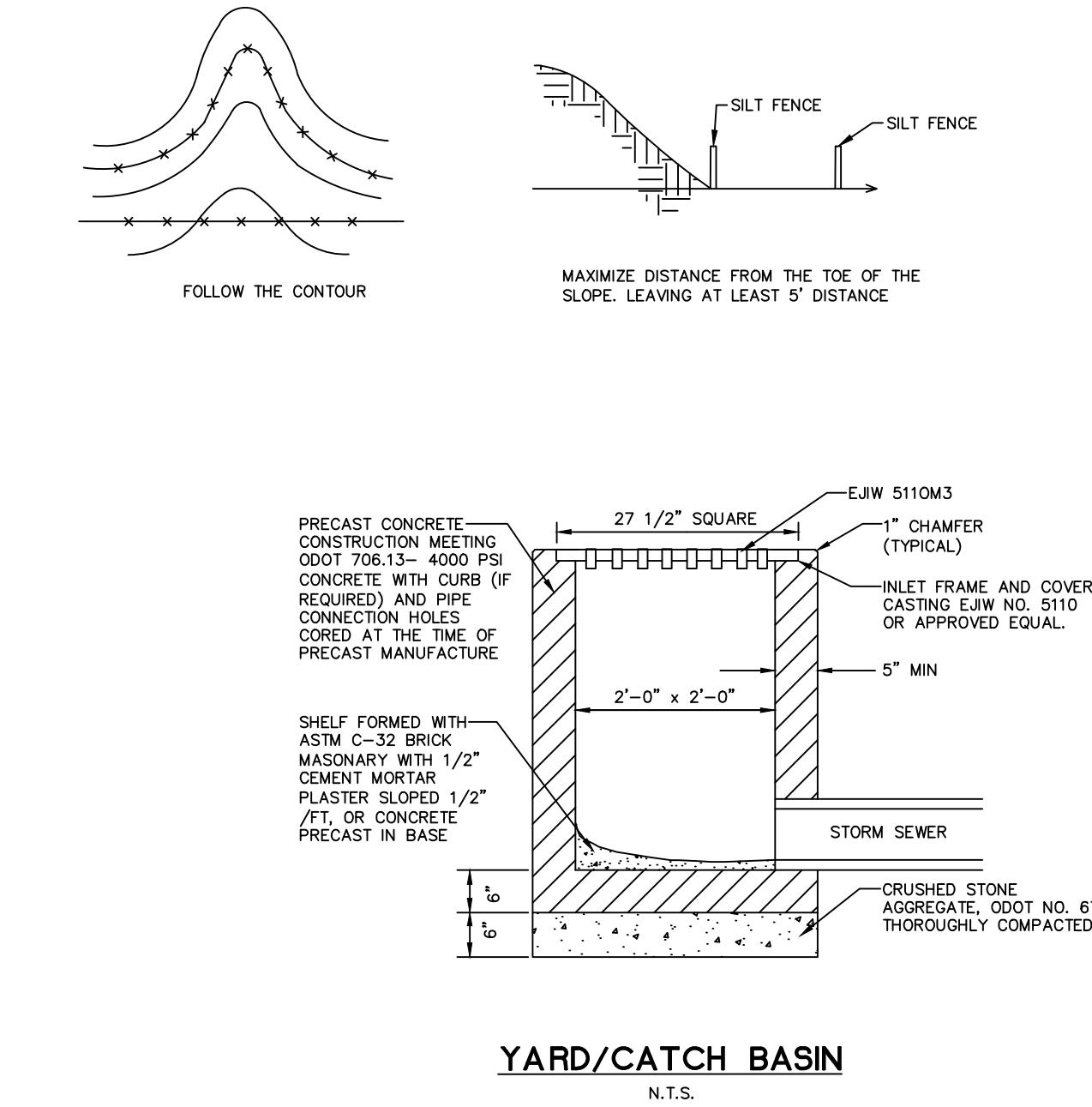
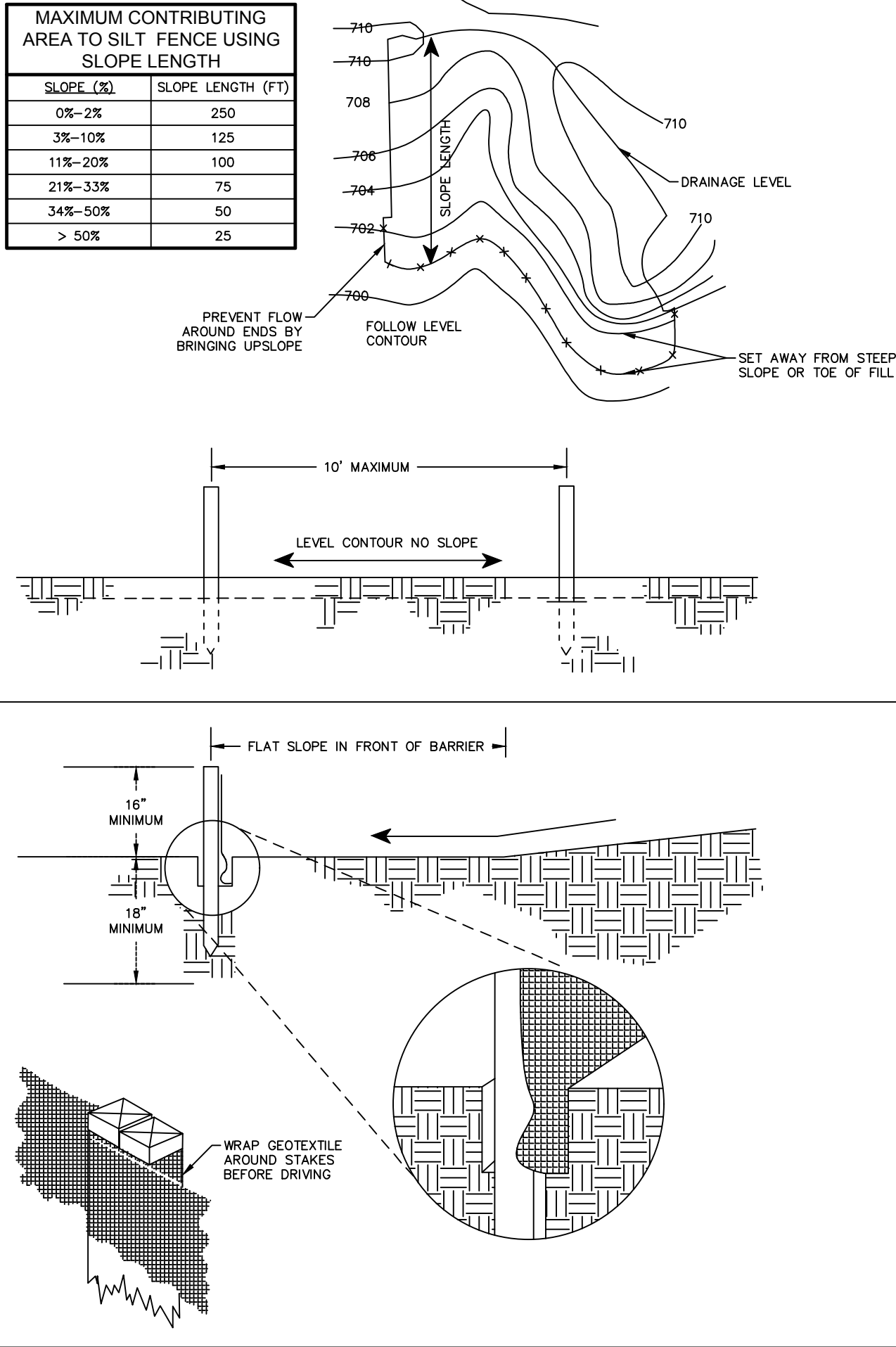
Specifications
for
Rigid Lip Level Spreader



1. Construct level spreader on a level grade to ensure uniform spreading of storm runoff.
2. Level spreaders must be constructed on undisturbed soil, NOT on fill.
3. The level spreader must outlet to erosion-resistant areas with established existing vegetation.
4. Rock shall be ODOT Type D where 50% of the material by weight is larger than 6 inches, and 85% of the material by weight is larger than 3 inches but less than 12 inches.
5. Rock in level spreader shall be compacted with at least two passes of heavy machinery to prevent further settling. Spread gravel or soil over top of the placed riprap surface to fill the voids and interlock the riprap together.
6. Fertilizing, seeding, and mulching shall conform to the recommendations in the applicable vegetative specification.

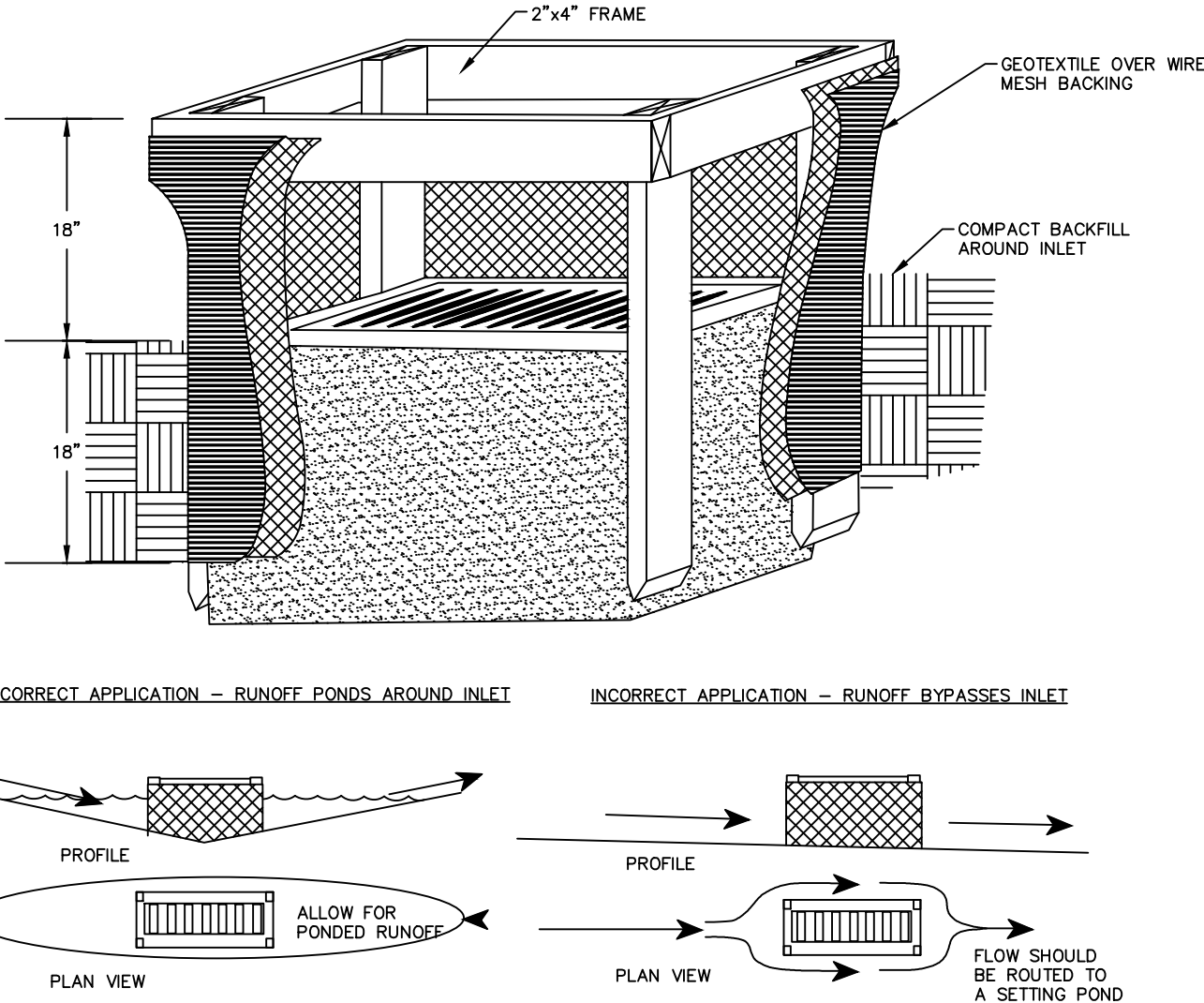
SILT FENCE

- INSTALLATION:
1. CONSTRUCT PRIOR TO UPSLOPE LAND DISTURBANCE.
 2. PLACE CONTINUOUS LENGTHS OF SILT FENCE ALONG A CONSISTENT CONTOUR SO AS TO PREVENT THE CONCENTRATION OF RUNOFF AT LOW POINTS IN THE FENCE.
 3. TO PREVENT FLOW AROUND ENDS, EXTEND EACH END OF A CONTINUOUS LENGTH OF SILT FENCE UPSLOPE (90 DEGREES TO THE CONTOUR) SO THE ENDS ARE AT A HIGHER ELEVATION OR 20-FEET IN HORIZONTAL DISTANCE, WHICHEVER IS ACHIEVED FIRST.
 4. AT A MINIMUM, THE BOTTOM 8-INCHES OF THE SILT FENCE MATERIAL MUST BE PLACED IN A TRENCH (MINIMUM 6-INCH DEPTH) THAT IS CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE. THE TRENCH SHALL NOT BE CONSTRUCTED WITH THE TILT OF A BULLDOZER.
 5. THE TRENCH MUST BE BACKFILL WITH SOIL AND PROPERLY COMPACTED, WHEN AGGRESSIVELY PULLED UPWARD BETWEEN TWO CONSECUTIVE STAKES, THE SILT FENCE SHOULD NOT PULL OUT OF THE GROUND.
 6. STAKES (MIN. 32" LENGTH, 2"x2" HARDWOOD OF GOOD QUALITY) MUST BE PLACED ON THE DOWNSLOPE SIDE OF THE SILT FENCE MATERIAL.
 7. SILT FENCE MATERIAL MUST BE PULLED TIGHT BETWEEN CONSECUTIVE STAKES TO ENSURE THE FENCE DOES NOT SAG.
 8. WHEN IT IS NECESSARY TO JOIN TWO SEPARATE LENGTHS OF SILT FENCE TO FORM A CONTINUOUS RUN, THE END OF TWO SEPARATE LENGTHS MUST BE JOINED TOGETHER BY FIRST OVERLAPPING THEM AND THEN TWISTING THEM TOGETHER AT LEAST 180 DEGREES PRIOR TO DRIVING THE STAKES INTO THE GROUND.
- MAINTENANCE:
1. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE. THE REMOVED SEDIMENT MUST BE STABILIZED AND SHOULD NOT BE PLACED WHERE IT COULD EVENTUALLY BE CONVEYED BACK TO THE SILT FENCE VIA SURFACE RUNOFF.
 2. REPLACE AND PROPERLY DISPOSE OF DAMAGED SILT FENCE MATERIAL.
 3. AREAS WHERE SURFACE FLOW HAS CUT UNDER THE SILT FENCE MATERIAL WITHIN THE TRENCH SHALL BE RE-COMPACTED WITH APPROPRIATE MATERIAL (I.E. HIGH CLAY CONTENT).
- REMOVAL:
1. PULL OUT ALL SILT FENCE MATERIAL AND STAKES AND PROPERLY DISPOSE OF OFF SITE.
 2. RE-GRADE AREA WHERE SEDIMENT HAS ACCUMULATED AS NECESSARY AND ESTABLISH VEGETATION IN ANY RESULTING DISTURBED AREAS.
- ALTERNATIVE MANUFACTURED YARD DRAIN INLET PROTECTION PRODUCTS ARE AVAILABLE AND CAN BE USED, SUBJECT TO PRIOR APPROVAL BY THE COMMUNITY ENGINEER.



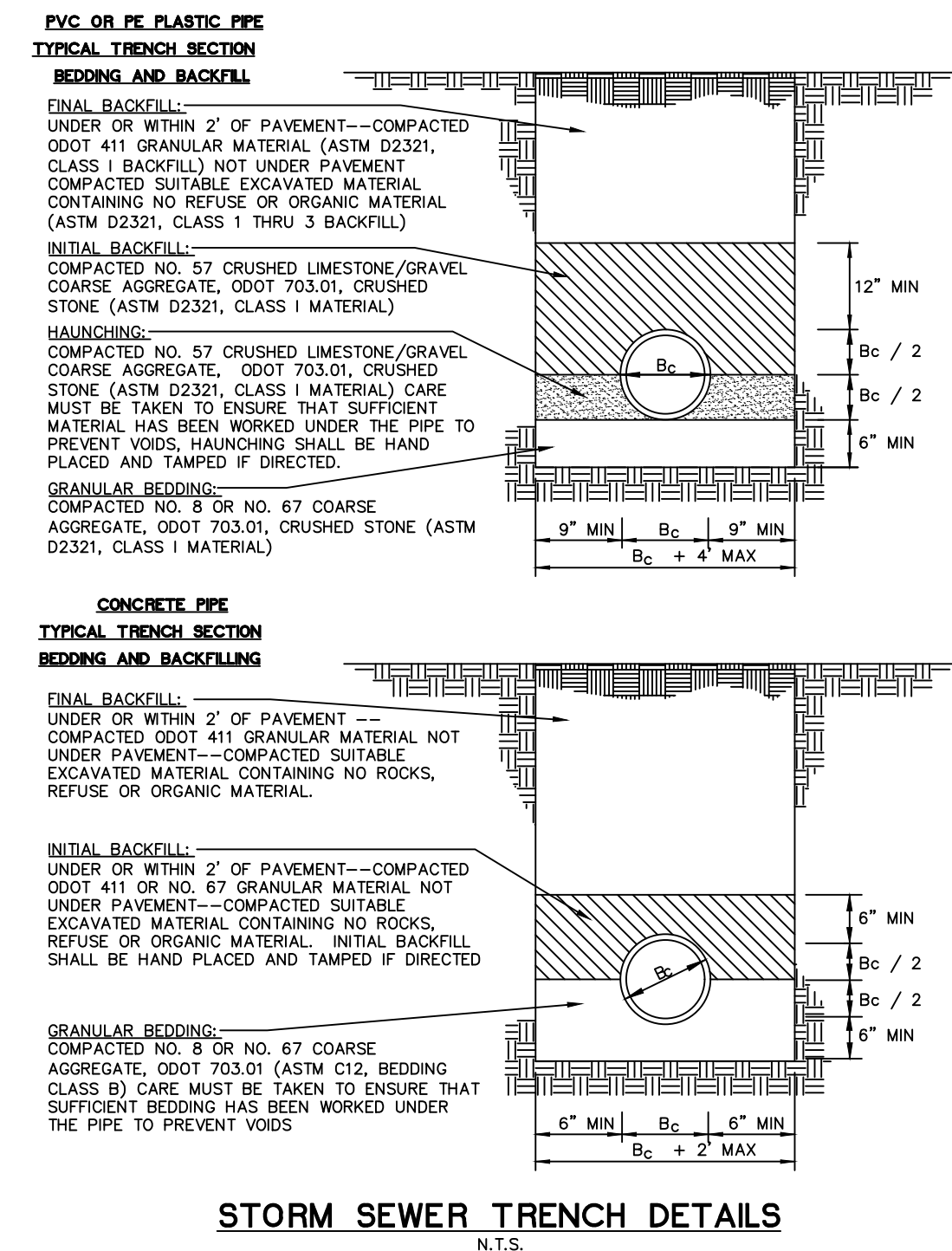
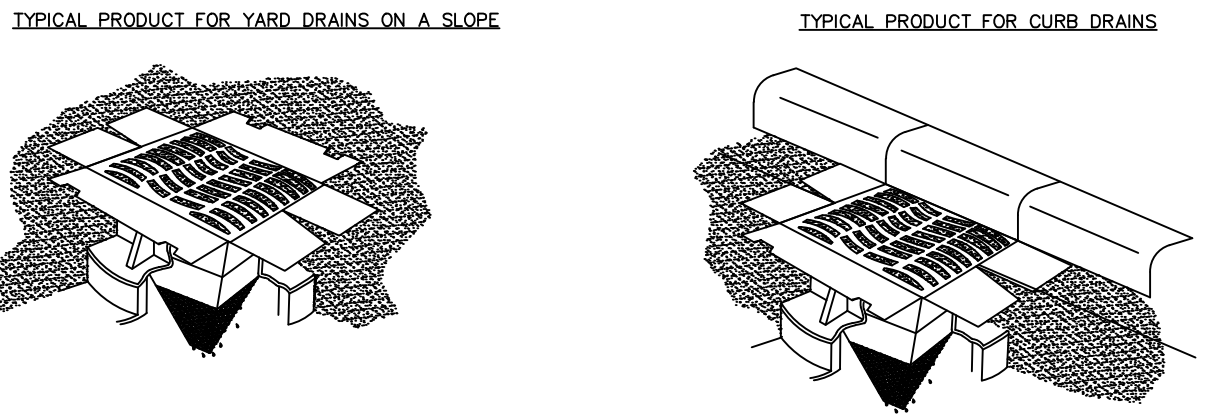
YARD DRAIN INLET PROTECTION

- INSTALLATION:
1. CONSTRUCT PRIOR TO UPSLOPE LAND DISTURBANCE.
 2. CONSTRUCT WOODEN FRAME FROM 2"x2" LUMBER. DRIVE POSTS 1-FOOT INTO THE GROUND AT EACH CORNER DIRECTLY AGAINST THE CONCRETE BOX AND ASSEMBLE THE TOP FRAME WITH AN OVERLAP JOINT SHOWN BELOW. THE TOP FRAME SHALL BE SET AT AN ELEVATION THAT DOES NOT CAUSE PONDED WATER TO BACKUP INTO UNWANTED AREAS.
 3. THE WIRE MESH AND GEOTEXTILE SHALL BE TIGHTLY STRETCHED AND FASTENED TO THE FRAME.
 4. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE END OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
 5. BACKFILL SHALL BE PLACED IN THE 18-INCH TRENCH AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE ELEVATION OF THE TOP OF THE GRATE IS REACHED.
- MAINTENANCE:
1. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE-HALF THE HEIGHT OF THE PRACTICE. THE REMOVED SEDIMENT MUST BE STABILIZED AND SHOULD NOT BE PLACED WHERE IT COULD EVENTUALLY BE CONVEYED BACK TO THE INLET VIA SURFACE RUNOFF.
 2. REPLACE AND PROPERLY DISPOSE OF DAMAGED SILT FENCE MATERIAL.
 3. AREAS WHERE SURFACE FLOW HAS CUT UNDER THE SILT FENCE MATERIAL WITHIN THE TRENCH SHALL BE RE-COMPACTED WITH APPROPRIATE MATERIAL (I.E. HIGH CLAY CONTENT).
- REMOVAL:
1. PULL OUT ALL SILT FENCE MATERIAL AND STAKES AND PROPERLY DISPOSE OF OFF SITE.
 2. RE-GRADE AREA WHERE SEDIMENT HAS ACCUMULATED AS NECESSARY AND ESTABLISH VEGETATION IN ANY RESULTING DISTURBED AREAS.



INLET PROTECTION FOR CURB DRAINS AND YARD DRAINS SITUATED ON A SLOPE

- INSTALLATION:
1. REMOVE THE GRATE FROM THE CATCH BASIN.
 2. INSERT THE FILTRATION SACK INTO THE OPENING OF CATCH BASIN. SOME PRODUCTS REQUIRE THE FILTRATION SACK TO BE SLIPPED OVER THE CATCH BASIN GRATE FIRST.
 3. REINSERT GRATE INTO CATCH BASIN WHILE ENSURING ALL NECESSARY SUPPORT STRAPS REMAIN OUTSIDE THE CATCH BASIN ON TOP OF THE SURFACE. IF NECESSARY, INSERT REBAR THROUGH THE SUPPORT AND ENSURE THE FILTRATION SACK DOES NOT FALL INTO CATCH BASIN AS IT FILLS WITH SEDIMENT.
- MAINTENANCE:
1. THE FILTRATION SACK MUST BE EMPTIED WHEN IT IS 1/3 FULL OF SEDIMENT AND DEBRIS. SACKS ARE TYPICALLY MANUFACTURED WITH LIFTING STRAPS AND DUMPING STRAPS.
 2. TO EMPT THE SACK, REMOVE THE GRATE, LIFT THE SACK OUT OF THE CATCH BASIN VIA THE LIFTING STRAPS AND HAIL IT TO AN APPROPRIATE AREA, TURN IT INSIDE OUT WITH THE DUMPING STRAPS PROVIDED.
 3. THE FILTRATION SACK MUST BE REPLACED IF IT IS TORN, OTHERWISE THE SAME SACK CAN BE USED MULTIPLE TIMES.
- REMOVAL:
1. PULL OUT ALL INLET PROTECTION MATERIAL AND PROPERLY DISPOSE OFF-SITE.
 2. RE-GRADE AREA WHERE ACCUMULATED SEDIMENT HAS BEEN PLACED AS NECESSARY AND ESTABLISH VEGETATION ON ANY RESULTING DISTURBED AREAS.
- THE FOLLOWING DIAGRAMS PROVIDE A GENERAL IDEA OF HOW TO INSTALL AND MAINTAIN A VARIETY OF MANUFACTURED STORM DRAIN INLET PROTECTION PRACTICES. BE SURE TO IMPLEMENT FILTRATION SACKS THAT ARE APPROPRIATE FOR EITHER CURB INLETS OR FOR YARD DRAIN INLETS. MANUFACTURER'S SPECIFICATIONS FOR THE PRODUCT OF CHOICE SHOULD BE FOLLOWED.



CONCRETE WASHOUT AREAS

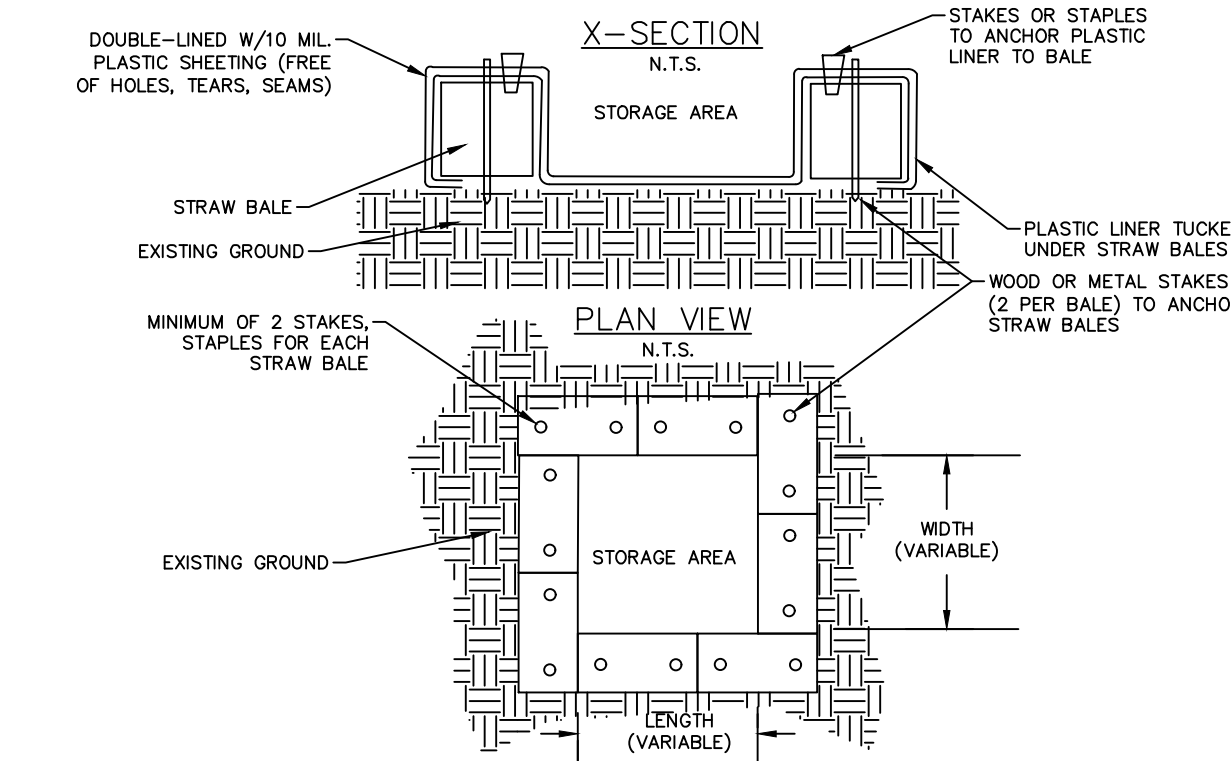
- INSTALLATION:
1. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE AND WASHOUT PITS SHALL BE SITUATED A MINIMUM OF FIFTY (50) FEET FROM THEM.
 2. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURE WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED.
 3. ENSURE A STABLE PATH IS PROVIDED FOR CONCRETE TRUCKS TO REACH THE WASHOUT AREA.
 4. A HIGHLY VISIBLE SIGN THAT READS "CONCRETE WASHOUT AREA" SHALL BE ERRECTED ADJACENT TO THE WASHOUT PIT.
 5. SURFACE RUNOFF GENERATED FROM UPSLOPE AREAS SHALL BE DIVERTED AWAY FROM BELOW-GRADE WASHOUT PITS SO AS NOT TO FLOW INTO THEM.
 6. A SINGLE CENTRALIZED WASHOUT AREA MAY BE UTILIZED FOR MULTIPLE SUBLOTS.
- MAINTENANCE:
7. THE WASHOUT PIT MUST BE INSPECTED FREQUENTLY TO ENSURE THE LINER IS INTACT.
 8. ONCE 75% OF THE ORIGINAL VOLUME OF THE WASHOUT PIT IS FILLED OR IF THE LINER IS TORN, THE MATERIAL MUST BE REMOVED AND PROPERLY DISPOSED OF ONCE IT IS COMPLETELY HARDENED. ONCE THE HARDENED CONCRETE IS REMOVED, THE LINER MUST BE REPLACED (IF TORN). A NEW PIT MUST BE CONSTRUCTED IF THE ORIGINAL STRUCTURE IS NO LONGER SUITABLE.
- REMOVAL:
9. ONCE THE WASHOUT PIT IS NO LONGER NEEDED, ENSURE ALL WASHOUT MATERIAL HAS COMPLETELY HARDENED, THEN REMOVE AND PROPERLY DISPOSE OF ALL MATERIALS. IF STRAW BALES WERE USED, THEY CAN BE SPREAD AS MULCH.
 10. PREFABRICATED CONTAINERS SPECIFICALLY DESIGNED FOR CONCRETE WASHOUT COLLECTION MAY BE USED SUBJECT TO PRIOR APPROVAL BY THE COMMUNITY ENGINEER. FOLLOW THE MANUFACTURER'S SUGGESTIONS FOR INSTALLATION, MAINTENANCE AND REMOVAL PROCEDURES.

SIZING OF CONCRETE WASHOUT PITS

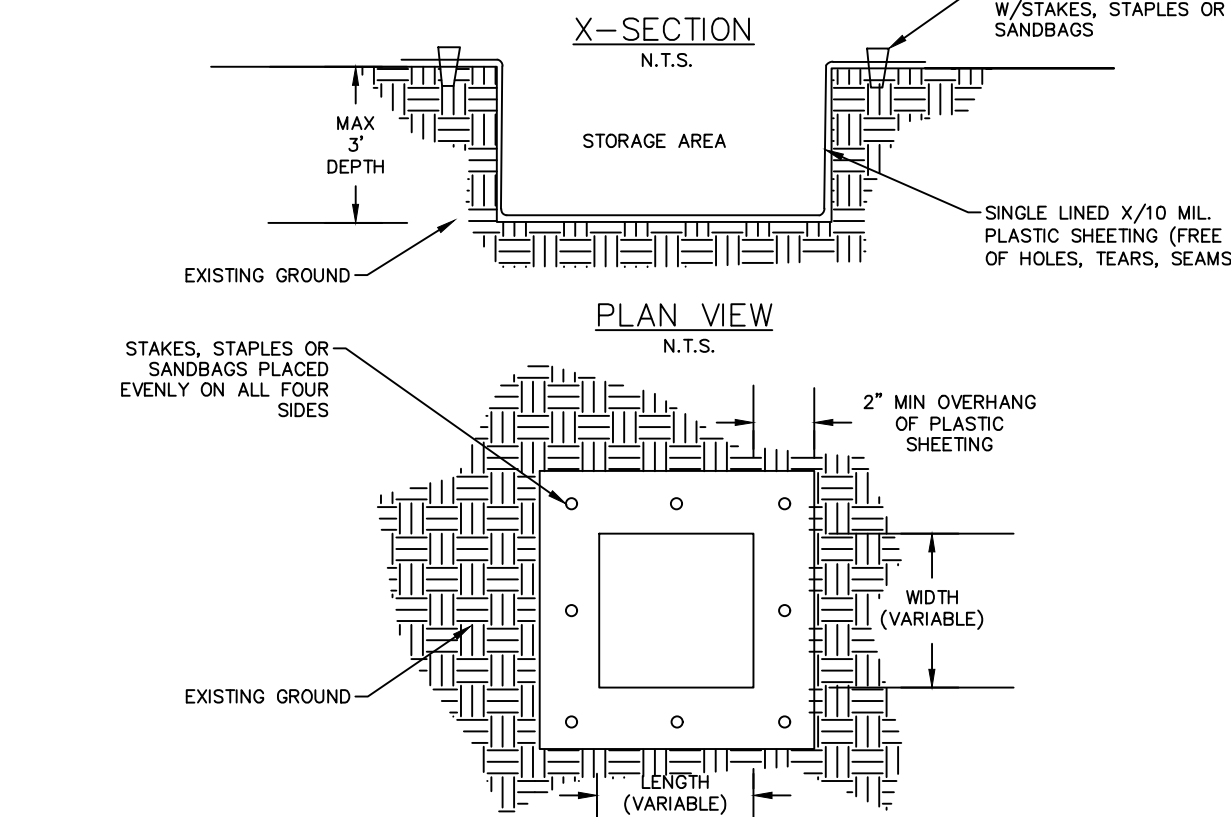
BELOW-GRADE (3-FT DEPTH)			ABOVE-GRADE (2-FT DEPTH)		
# OF CONCRETE TRUCKS EXPECTED TO BE WASHED OUT ON SITE	WIDTH (FT)	LENGTH (FT)	# OF CONCRETE TRUCKS EXPECTED TO BE WASHED OUT ON SITE	WIDTH (FT)	LENGTH (FT)
2-3	3	3	2	3	3
4-5	4	4	3-4	4	4
6-7	5	5	5-6	5	5
8-10	6	6	7-8	6	6
11-14	7	7	9-11	7	7
			12-15	8	8

*FOR SMALL PROJECTS USING A MAXIMUM OF ONLY ONE TRUCKLOAD OF CONCRETE OR UTILIZING ON-SITE MIXING, RINSING OF EQUIPMENT MAY TAKE PLACE ON THE LOT WITHOUT A PIT, PROVIDED IT CAN BE DONE A MINIMUM OF FIFTY (50) FEET AWAY FROM ANY WATER CONVEYANCES.

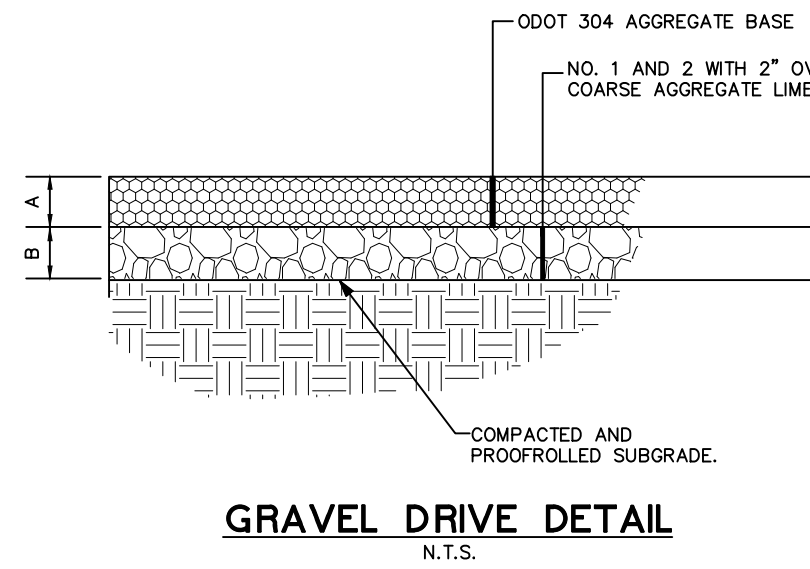
ABOVE-GRADE CONCRETE WASHOUT PIT



BELOW-GRADE CONCRETE WASHOUT PIT



LOCATION	A	B
STANDARD DUTY PAVING	3"	6"



SCHAESE
BUCKLEY
MAYFIELD LLC
CONSULTING
ENGINEERS

1540 CORPORATE WOODS PARKWAY
UNIONTOWN, OHIO 44685-6797
PHONE: (330) 696-4664
FAX: (330) 696-9180

STATE OF OHIO
K. M. NOBLE
E-56746
PROFESSIONAL ENGINEER

Kim M. Noble 4/17/20
SIGNATURE DATE

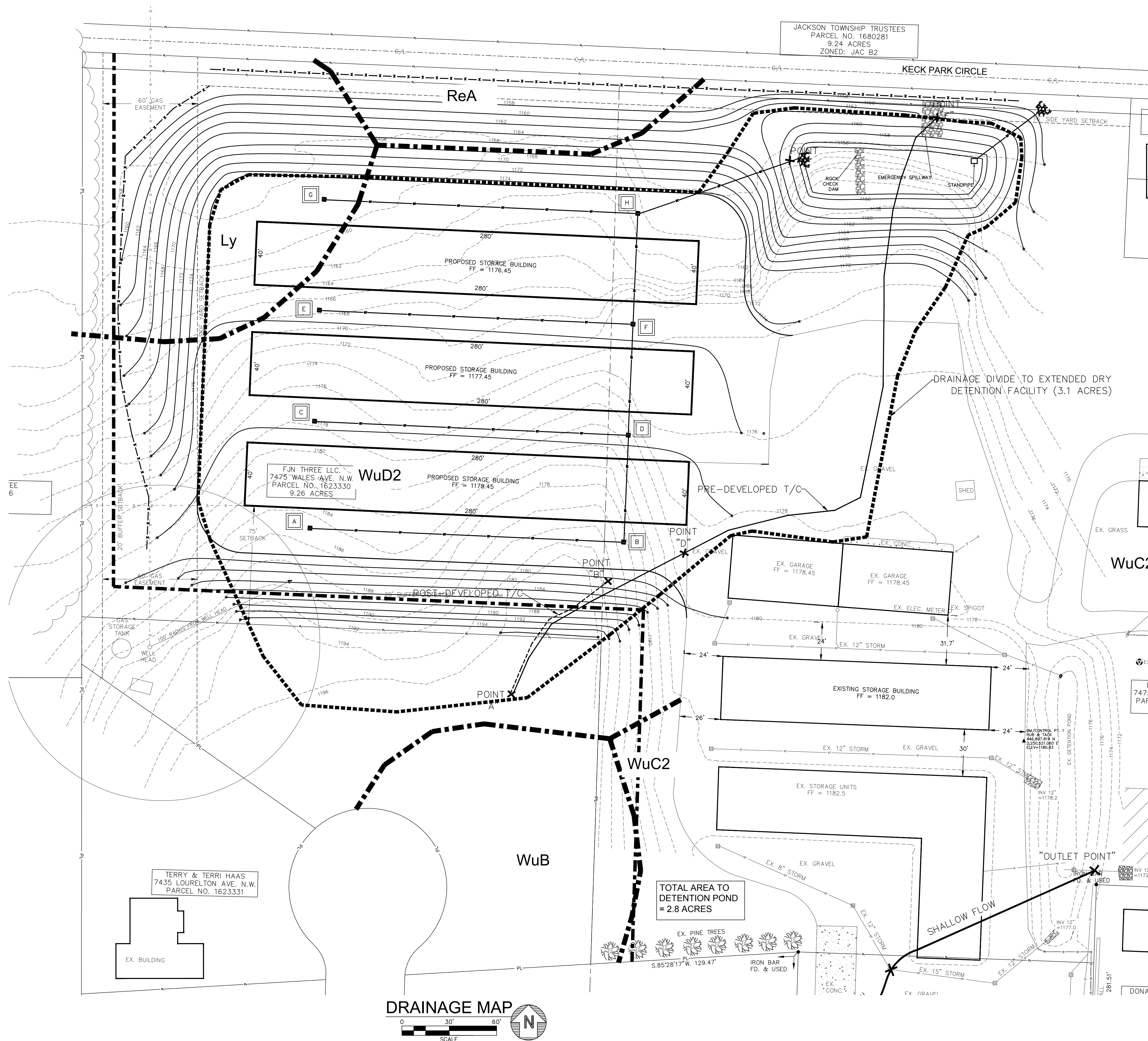
THREE STORAGE BUILDING ADDITIONS
7475 WALES AVENUE
JACKSON TOWNSHIP
STARK COUNTY, OHIO

REVISIONS:

DATE: 04/17/20
DRAWN BY: C.M.W.
CHECKED BY: KMN
JOB NO.: 20024

EROSION
CONTROL
DETAILS

C301



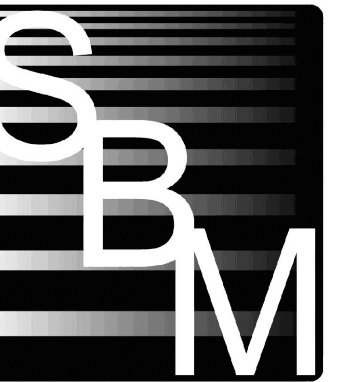
DRAINAGE MAP



A scale bar showing 0, 30, and 60 feet, and a North arrow pointing upwards.

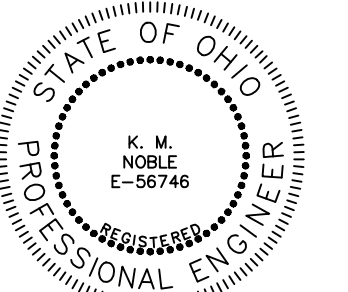
LEGEND

- | | |
|--|-----------------------------|
| | EX CONTOUR |
| | PROPOSED CONTOUR |
| | EDGE OF GRAVEL |
| | CON LINK FENCE |
| | STORM WATER LINE |
| | GAS LINE |
| | RIPRAP |
| | PROPOSED BUILDING FOOTPRINT |
| | PROPERTY LINE |
| | RIGHT OF WAY |
| | ZONING LINE |
| | BENCH MARK/CONTROL POINT |
| | STORM DRAIN |
| | PROPOSED GRAVEL |
| | DRAINAGE DIVIDE |
| | SOIL BOUNDARY |



**SCHAESEER
BUCKLEY
MAYFIELD LLC
CONSULTING
ENGINEERS**

40 CORPORATE WOODS PARKWAY
MONTOWN, OHIO 44685-8797
PHONE: (330) 896-4664
FAX: (330) 896-9180



Sam M. Noble 4/17/20
SIGNATURE DATE

STARK COUNTY, OHIO
JACKSON TOWNSHIP
7475 WALES AVENUE
STORAGE BUILDING ADDITIONS

VISIONS:

DATE: 04/17/20
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RAINAGE MAP

DP1

