

RESEARCH DRIVE

CITY OF EASTLAKE - LAKE COUNTY - STATE OF OHIO

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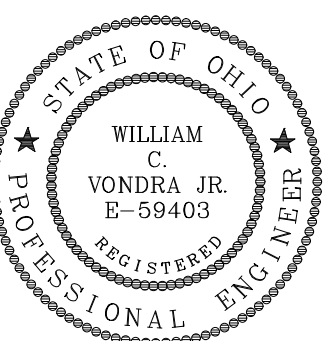
APPROVALS

OWNER:
FOUR M LEASING INC.
1540 COIT ROAD
EAST CLEVELAND, OH 44112
CONTACT: MARIO SKANDUL, PRESIDENT
c/o SKAMAR MACHINE
PHONE: 216-249-8670

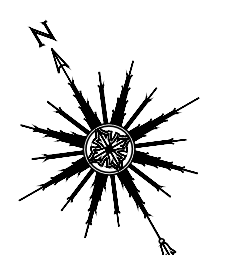
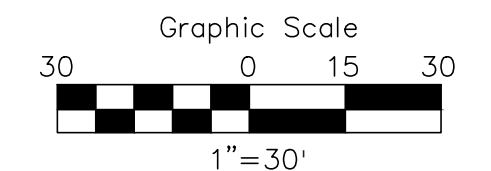
ENGINEER
LDC, INC.
9025 OSBORNE DR.
MENTOR, OHIO 44060
CONTACT:
RICH CANTANZRITI
PHONE: (440) 255-8463



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WILLIAM C. VONDRA JR., P.E.



Existing Storm Sewer

- ① Rim: 599.80
Inv. 594.19 W. 12"
Inv. 591.02 E. 12"
Inv. 590.02 N. 24"
Inv. 589.77 S. 27"
- ② Rim: 598.82
Inv. 594.82 12"
- ③ Rim: 598.73
Inv. 595.09 12"
- ④ Rim: 597.54
Inv. 591.67 W. 12"
Inv. 591.82 N. 15"
Inv. 591.22 S. 24"
Inv. 591.67 Storm Conn.
- ⑤ Rim: 595.96
Inv. 591.70 12"
- ⑥ Rim: 596.00
Inv. 592.10 12"

Existing Sanitary Sewer

- A Rim: 600.09
Inv. 588.67 8"
- B Rim: 596.98
Inv. 587.34 8"

SYMBOL LEGEND

	CLEANOUT		GUIDE WIRE
	CATCH BASIN		POWER POLE
	CURB INLET		LIGHT POLE
	YARD DRAIN		LIGHT POWER POLE
	MANHOLE		TRAFFIC SIGNAL POLE
	SANITARY MANHOLE		TRAFFIC SIGNAL BOX
	STORM MANHOLE		ELECTRICAL BOX
	STORM INLET MANHOLE		TELEPHONE (SAC) BOX
	DOWN SPOUT TO UNDERGROUND		TREE
	WATER VALVE		PINE TREE
	WATER METER		BUSH
	FIRE HYDRANT		POWER TRANSFORMER
	WELL		MAIL BOX
	GAS VALVE		SCB SPRINKLER CONTROL BOX
	GAS METER		SIGN
	GAS MARKER		MONITOR WELL
	GUARD POST		
	TEST BORE		

	Storm Sewer	---	---
	Sanitary Sewer	SAN	SAN
	Water	W	W
	Overhead Utility Line	OH	OH
	Centerline	C/L	C/L
	Right-of-Way Property Line	R/W	P/L
	Fence	X	X
	Telephone	T	T
	Cable	C	C
	Electric	E	E
	Gas	G	G
	Tree Line		
	Landscaping		

BENCHMARK
599.80 DATUM NAVD 88 (USGS)

I, the undersigned, hereby certify that this topography, indicated by 6", 1", or 2" contours, and elevations shown hereon, represent an actual field survey made by me on the 10 day of August, 2020, and that the elevations were taken at appropriate intervals and that as of that date they existed as indicated hereon. Datum NAVD 88 (USGS)

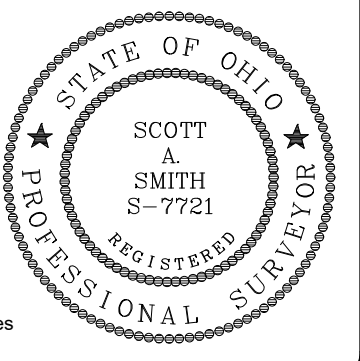
I hereby certify that this plat was prepared from a field survey made under my direct supervision. Monuments were found or set as indicated. Dimensions are expressed in feet and decimal parts thereof. Bearings refer to NAD 83 (2011ad) geoid 12B ODOT VRS network. All of which are correct to the best of my knowledge and belief. This plat was prepared in accordance with the provisions of Chapter 4733-37 of the Ohio Administrative Code. This plat was prepared without the benefit of an abstract of title and is subject to any state of facts revealed by an examination of the same.

Scott A. Smith
Scott A. Smith, P.S. # 7721



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EXISTING UNDERGROUND UTILITIES NOTE:
The size and location, both horizontal and vertical, of the underground utilities shown hereon, have been obtained by a diligent and comprehensive search of available records. Verification by field observation has been conducted where practical. However, LDC, Inc. does not guarantee the completeness nor accuracy thereof.

34-A-012-0-00-015-0
CIROS PROPERTY MANAGEMENT
37100 RESEARCH DR
2000R006992
SL 1

34-A-012-0-00-013-0
FOUR M LEASING INC
Acreage: 3.1611
2006R026073
SL 1B

34-A-012-0-00-006-0
LAKE BUSINESS SOLUTIONS LLC
37200 RESEARCH DR
2002R064411
SL 4

BENCH MARK
RIM OF STORM
MANHOLE
ELEVATION 599.80

REV. No.	DATE	BY	CHK'D

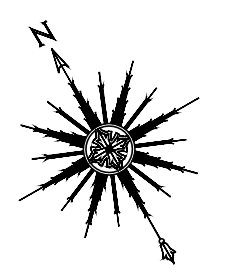
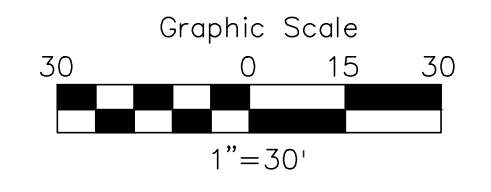
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LDC, Inc. dba. 9025 Osborne Drive Mentor, Ohio 44060
TEL: (440) 255-8463 (440) 951-LAND

SL 1B RESEARCH DRIVE
Eastlake City-Lake County-Ohio

DATE	2-17-21
SCALE: HOR.	1"=30'
VERT.	VERT.
FILENAME	BASE
COMPUTER	S.
TAB NAME	EXIST

EXISTING CONDITIONS

SHEET OF	2 / 9
CONTRACT No.	SKAMM1-1701



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 CIROS PROPERTY MANAGEMENT
 37100 RESEARCH DR
 2000R006992
 SL 1

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 FOUR M LEASING INC
 Acreage: 3.1611
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 SL 1B

34-A-012-0-00-006-0
 LAKE BUSINESS SOLUTIONS LLC
 37200 RESEARCH DR
 2002R064411
 SL 4

PARSONS GLEN SUBDIVISION NO. 2, PLAT VOL 12-41

RESEARCH DRIVE (80')
 Plat Vol. 35-28

BENCHMARK
 599.80 DATUM NAVD 88 (USGS)



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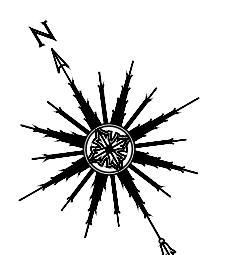
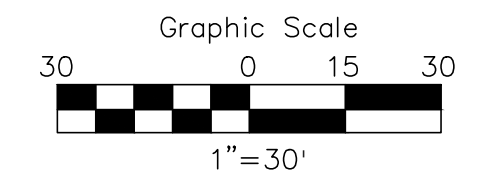
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VERT.	VERT.
FILENAME	BASE
COMPUTER	S.
TAB NAME	SITE

SITE PLAN

SHEET OF	3 / 9
CONTRACT No.	SKAMM1-1701



Existing Storm Sewer

- ① Rim: 599.80
Inv. 594.19 W. 12"
Inv. 591.02 E. 12"
Inv. 590.02 N. 24"
Inv. 589.77 S. 27"
- ② Rim: 598.82
Inv. 594.82 12"
- ③ Rim: 598.73
Inv. 595.09 12"
- ④ Rim: 597.54
Inv. 591.67 W. 12"
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Inv. 591.22 S. 24"
Inv. 591.67 Storm Conn.
- ⑤ Rim: 595.96
Inv. 591.70 12"
- ⑥ Rim: 596.00
Inv. 592.10 12"

Existing Sanitary Sewer

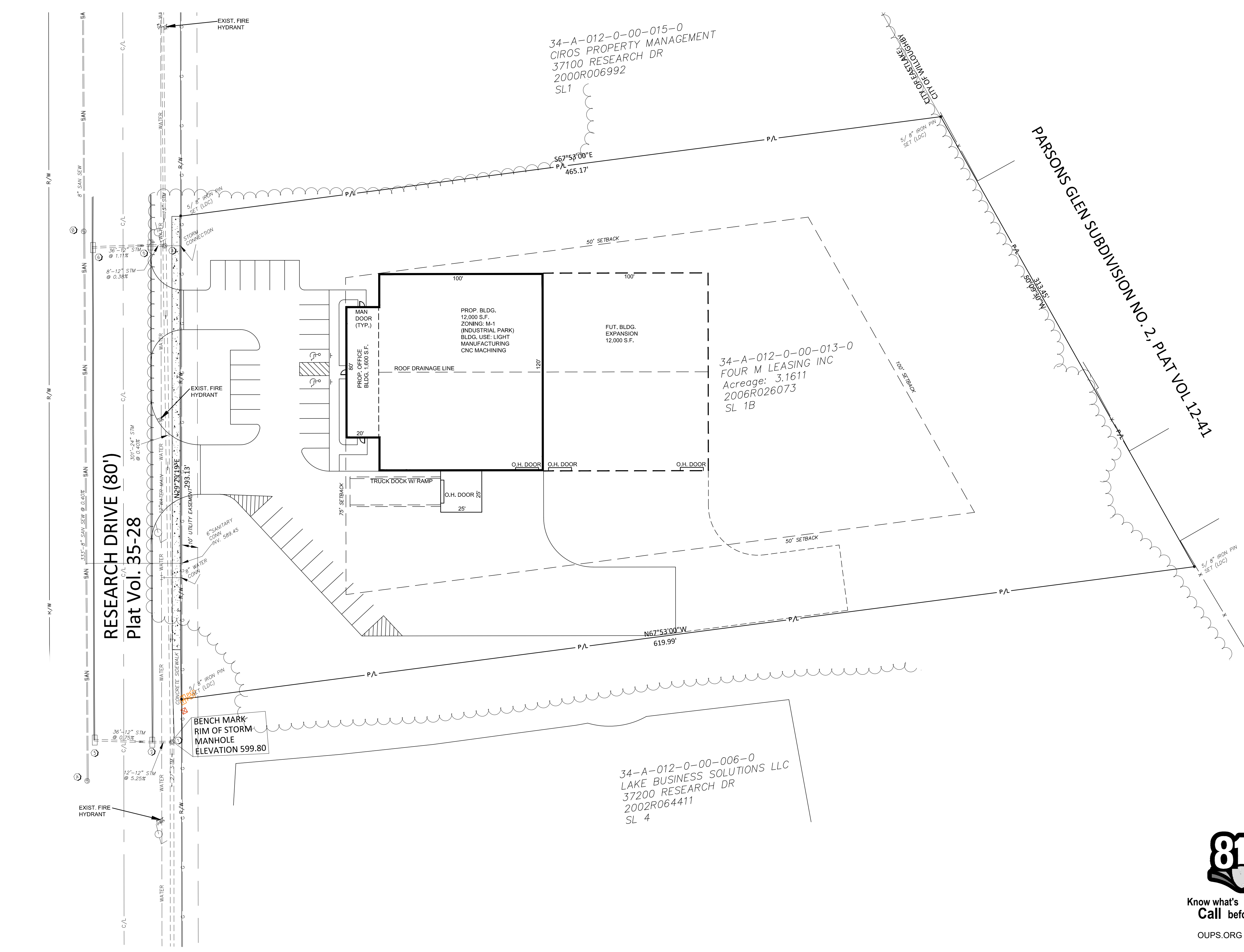
- A Rim: 600.09
Inv. 588.67 8"
- B Rim: 596.98
Inv. 587.34 8"

SYMBOL LEGEND

○ CLEANOUT	— GUIDE WIRE
□ CATCH BASIN	○ POWER POLE
□ CURB INLET	○ LIGHT POLE
○ YARD DRAIN	○ LIGHT POWER POLE
○ MANHOLE	○ TRAFFIC SIGNAL POLE
○ SANITARY MANHOLE	○ TRAFFIC SIGNAL BOX
○ STORM MANHOLE	○ ELECTRICAL BOX
○ STORM INLET MANHOLE	○ PED TELEPHONE (SAC) BOX
○ HD DOWN SPOUT TO UNDERGROUND	○ TREE
○ WV WATER VALVE	○ PINE TREE
○ WM WATER METER	○ BUSH
○ FV FIRE VALVE	○ POWER TRANSFORMER
○ GM GAS METER	○ MB MAIL BOX
○ G GAS MARKER	○ SCB SPRINKLER CONTROL BOX
○ GP GUARD POST	○ SIGN
○ TB TEST BORE	○ MW MONITOR WELL

Storm Sewer	---	SAN	---	SAN
Sanitary Sewer	---		---	
Water	---	W	---	W
Overhead Utility Line	---	OH	---	
Centerline	---		---	C/L
Right-of-Way	---		---	R/W
Property Line	---		---	P/L
Fence	---	X	---	X
Telephone	---	T	---	T
Cable	---	C	---	C
Electric	---	E	---	E
Gas	---	G	---	G
Tree Line	---		---	
Landscaping	---		---	

BENCHMARK
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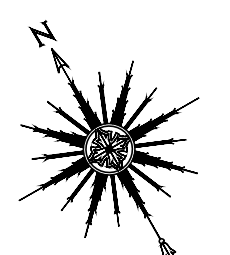
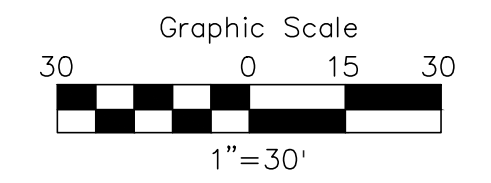
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SCALE: HOR.	1"=30'
VERT.	VERT.
FILENAME	BASE
COMPUTER	S.
TAB NAME	UTIL.

SITE UTILITY PLAN

SHEET OF	4 / 9
CONTRACT No.	SKAMM1-1701



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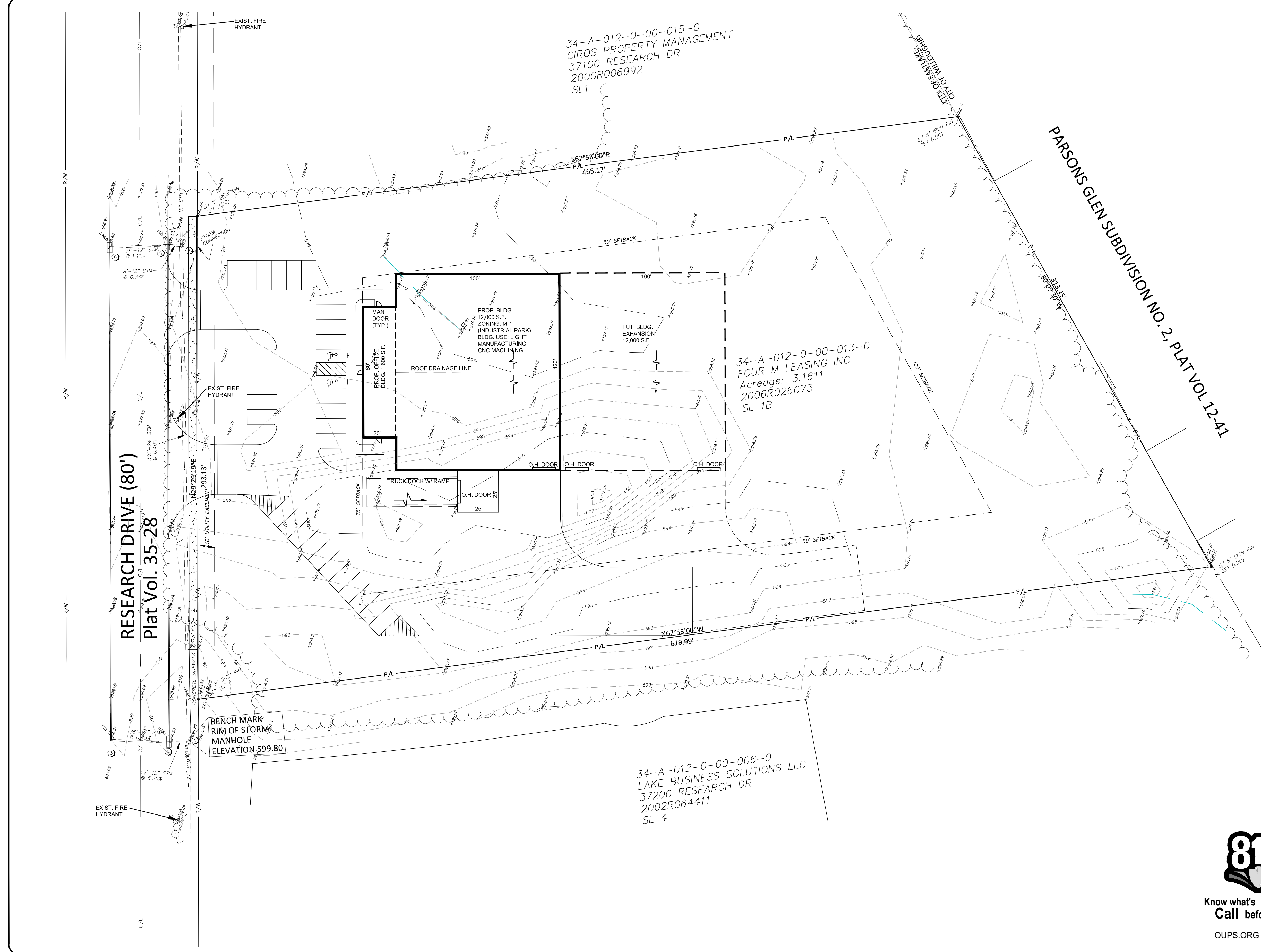
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FILENAME	BASE
COMPUTER	S.
TAB NAME	GRADE

SITE GRADING & SWP3 PLAN

SHEET OF	5 / 9
CONTRACT No.	SKAMM1-1701

GENERAL EROSION AND SEDIMENT CONTROL NOTES

EROSION CONTROL SHALL CONSIST OF TEMPORARY AND PERMANENT (POST CONSTRUCTION WQ) CONTROL MEASURES AS DETAILED ON THE PLANS OR ORDERED BY LAKE COUNTY DURING THE TERM OF CONSTRUCTION TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGH THE USE OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs).

TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY CLEARING OR EARTHWORK OPERATIONS. CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN DURING DESIGN STAGE, THAT REQUIRE ADDITIONAL OR MODIFIED TEMPORARY OR PERMANENT BMPs SHALL BE APPROVED BY THE COUNTY ENGINEER AND REFLECTED ON THE REVISED SWP3.

SEDIMENT PONDS, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS, SHALL BE IMPLEMENTED PRIOR TO GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UP SLOPE DEVELOPMENT AREAS ARE RE-ESTABLISHED WITH 70% VEGETATIVE COVER. SEDIMENT CONTROLS SHALL NOT BE PLACED IN A STREAM.

TRENCH DEWATERING OR GROUND WATER, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG, OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGED TO STREAMS, WATER RESOURCES, OR THE STORM SEWER SYSTEM.

THE SWP3, NOTES AND DETAILED DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) RAINWATER AND LAND DEVELOPMENT MANUAL.

ADDITIONAL EROSION AND SEDIMENT CONTROL BMPs MAY BE REQUIRED BY LAKE COUNTY AS UNFORSEEN SITUATIONS MAY ARISE THAT REQUIRE ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES.

CLEARING AND GRUBBING
LIMITS OF CLEARING AND GRADING SHALL BE CLEARLY MARKED ON THE SITE WITH SIGNAGE, FLAGGING AND/OR ORANGE CONSTRUCTION FENCING.

THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS, WATER RESOURCES, WETLANDS, OR OTHER AREAS OF WATER IMPOUNDMENT.

CONSTRUCTION ENTRANCE

A STONED CONSTRUCTION ENTRANCE SHALL BE INSTALLED FOR ALL INGRESS AND EGRESS TO THE SITE. THE MINIMUM DIMENSIONS OF THE DRIVE SHALL BE 14 FEET WIDE BY 70 FEET LONG. THE STONE SHALL BE 6 INCHES DEEP WITH AN UNDERLAIN GEOTEXTILE FABRIC. THE DRIVE SHALL BE INSTALLED PRIOR TO ANY CLEARING AND GRUBBING. SEDIMENTS SHALL BE REMOVED FROM THE ROADWAY DAILY OR MORE FREQUENTLY IF REQUIRED BY THE CITY OF EASTLAKE.

STABILIZATION

PERMANENT AND TEMPORARY STABILIZATION SHALL OCCUR AS REQUIRED IN THE FOLLOWING TABLES:

TABLE 1: PERMANENT STABILIZATION

PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FT. OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

TEMPORARY SEEDING

SEEDED AREAS SHALL BE INSPECTED AND WHERE THE SEED HAS NOT PRODUCED 70% COVER SHALL BE RESEED BY THE CONTRACTOR. AREAS SHALL BE STABILIZED WITH STRAW MULCH WHEN CONDITIONS PROHIBIT SEEDING.

STRAW MULCH SHALL BE APPLIED AT A RATE OF 2-3 STANDARD 45 LB. BALES PER 1000 SQ. FT. OF DISTURBED AREA OR 2 TONS PER ACRE. ALL HYDROSEEDING MUST BE STRAW MULCHED ACCORDING TO THE ABOVE SPECIFICATIONS UNLESS IT IS WATERED WEEKLY.

ALL DETENTION PONDS, RETENTION PONDS, WATER QUALITY STRUCTURES, SEDIMENT PONDS, SEDIMENT TRAPS, EARTHEN DIVERSIONS, OR EMBANKMENTS SHALL BE SEEDDED AND STRAW MULCHED WITHIN 7 DAYS OF COMPLETED CONSTRUCTION.

TABLE 2: TEMPORARY STABILIZATION

TEMPORARY STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA INCLUDING SOIL STOCKPILES THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN 1 YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
DISTURBED AREAS THAT WILL REMAIN IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER (NOV. 1) STRAW MULCH 2-3 BALES PER 1000 SQ. FT. OR 2 TONS PER ACRE
NOTE: WHERE TEMPORARY STABILIZATION TECHNIQUES ARE UNOBTAINABLE DUE TO INSTABILITY, EROSION MATTING MAY BE USED.	

PERMANENT STABILIZATION OF CONVEYANCE CHANNELS

THE CONTRACTOR SHALL UNDERTAKE SPECIAL MEASURES TO STABILIZE CHANNELS AND OUTFALLS AND PREVENT EROSION FLOWS. MEASURES MAY INCLUDE SEEDING, DORMANT SEEDING, MULCHING, EROSION CONTROL MATTING, SODDING, RIPRAP, NATURAL CHANNEL DESIGN WITH BIO-ENGINEERING TECHNIQUES, OR ROCK CHECK DAMS, ALL AS DEFINED IN THE MOST RECENT EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL PUBLISHED BY ODNR.

SOIL TRANSPORT ONTO PUBLIC ROADS

WHERE SOIL IS TRANSPORTED ONTO PUBLIC ROAD SURFACES, THE ROADS SHALL BE CLEANED THOROUGHLY BY EITHER SWEEPING OR SCRAPING AT THE END OF EACH WORK DAY OR MORE FREQUENTLY IF NEEDED IN ORDER TO ENSURE PUBLIC SAFETY. STREET WASHING IS NOT PERMITTED. IF APPLICABLE, THE CATCH BASINS NEAREST TO THE CONSTRUCTION ENTRANCE SHALL BE CLEANED WEEKLY.

ADDITIONAL REQUIREMENTS TO CONTROL SOIL TRANSPORT ONTO PUBLIC ROADS MAY INCLUDE:

- SILT FENCE OR CONSTRUCTION FENCE INSTALLED AROUND THE PERIMETER OF THE DEVELOPMENT AREA TO ENSURE ALL VEHICLE TRAFFIC ADHERES TO DESIGNATED CONSTRUCTION ENTRANCES.
- DESIGNATED WHEEL WASHING AREAS. WASH WATER FROM THESE AREAS MUST BE DIRECTED TO A DESIGNATED SEDIMENT TRAP, SEDIMENT SETTLING POND, OR TO A DEWATERING SUMP PIT.

ERODIBLE MATERIAL RAMPS IN STREETS TO ENABLE EQUIPMENT TO CROSS CURBS SHALL BE PROPERLY REMOVED IMMEDIATELY AFTER USE.

SILT FENCE AND DIVERSIONS

SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SILT FENCE OR DIVERSIONS TO PROTECT ADJACENT PROPERTIES, WATER RESOURCES, AND WETLANDS FROM SEDIMENT TRANSPORTED VIA SHEET FLOW. WHERE INTENDED TO PROVIDE SEDIMENT CONTROL, SILT FENCE SHALL BE PLACED ON A LEVEL CONTOUR AND SHALL BE CAPABLE OF TEMPORARILY PONDING RUNOFF. THE EPA PERMIT No. OH0C000004 DOES NOT PRECLUDE THE USE OF OTHER SEDIMENT BARRIERS DESIGNED TO CONTROL SHEET FLOW RUNOFF.

STORM WATER DIVERSION PRACTICES SHALL BE USED TO KEEP RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES. SUCH DEVICES, WHICH INCLUDE SWALES, DIKES OR BERMS, MAY RECEIVE STORM WATER RUNOFF FROM AREAS UP TO 10 ACRES.

INLET PROTECTION

INLET PROTECTION IS MANDATORY. INLET PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENT VERSION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL BY ODNR. ALL INLETS RECEIVING RUNOFF FROM DRAINAGE AREAS OF ONE OR MORE ACRES WILL REQUIRE A SEDIMENT SETTLING POND. STRAW OR HAY BALES ARE NOT ACCEPTABLE FORMS OF INLET PROTECTION.

NON-SEDIMENT POLLUTANTS CONTROLS

NO SOLID OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. ALL NECESSARY BMPs MUST BE IMPLEMENTED TO PREVENT THE DISCHARGE OF NON-SEDIMENT POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SITE, WATER RESOURCES, OR WETLANDS. UNDER NO CIRCUMSTANCE SHALL CONCRETE TRUCKS WASH OUT DIRECTLY INTO A DRAINAGE CHANNEL, STREET, STORM SEWER, OR OTHER PUBLIC FACILITY OR NATURAL RESOURCE. EXPOSURE OF WASTE MATERIALS TO STORM WATER IS NOT RECOMMENDED.

TRENCH AND GROUNDWATER CONTROL

THERE SHALL BE NO SEDIMENT LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT SETTLING POND 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.

INSPECTION

ALL CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. THE CONTRACTOR SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE, OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. QUALIFIED INSPECTION PERSONNEL ARE INDIVIDUALS WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS.

INSPECTIONS SHALL MEET THE FOLLOWING REQUIREMENTS:

- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM.
- EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. THE CONTRACTOR SHALL UTILIZE AN INSPECTION FORM PROVIDED BY LAKE COUNTY OR AN ALTERNATE FORM ACCEPTABLE TO THE COUNTY ENGINEER. THE INSPECTION FORM SHALL INCLUDE:
 - THE INSPECTION DATE.
 - NAMES, TITLES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION.
 - WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION, INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT AND APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT IN INCHES, AND WHETHER ANY DISCHARGES OCCURRED.
 - LOCATIONS OF:
 - DISCHARGES FROM SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.
 - BMPs THAT NEED TO BE MAINTAINED.
 - BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION.
 - WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF THE INSPECTION.
 - CORRECTIVE ACTION REQUIRED INCLUDING ANY NECESSARY CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.
- DISCHARGE LOCATIONS SHALL BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATER RESOURCE OR WETLANDS.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.
- THE PERMIT APPLICANT SHALL MAINTAIN FOR 3 YEARS FOLLOWING FINAL STABILIZATION THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTIONS, THE DATES OF THE 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.

MAINTENANCE

ALL CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION UNTIL FINAL STABILIZATION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP SLOPE AREAS THEY CONTROL REACH FINAL STABILIZATION. THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE SCHEDULE CONTAINED IN THE APPROVED PLANS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB-CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMPs SHALL BE MAINTAINED AT THE JOB SITE AS PROOF ACKNOWLEDGING THAT THEY HAVE REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWP3.

WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMPs, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

- WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: CONTROL PRACTICES IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, MUST BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.
- WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: CONTROL PRACTICES THAT FAIL TO PERFORM THEIR INTENDED FUNCTION AS DETAILED IN THE SWP3 SHALL BE REPLACED WITH ANOTHER MORE APPROPRIATE CONTROL WITHIN 10 DAYS. THE SWP3 SHALL BE AMENDED TO SHOW THE NEW CONTROL PRACTICE.
- WHEN PRACTICES ON THE SWP3 ARE NOT INSTALLED: CONTROL PRACTICES REQUIRED BY THE SWP3 BUT NOT IMPLEMENTED AT THE TIME OF THE INSPECTION SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE PLANNED CONTROL IS NOT NEEDED, AN EXPLANATION AS TO WHY THE CONTROL IS NOT NEEDED SHALL BE ADDED TO THE SWP3.

WASTE DISPOSAL

A COVERED DUMPSTER SHALL BE MADE AVAILABLE FOR THE PROPER DISPOSAL OF GARBAGE, PLASTER, DRYWALL, GROUT, GYPSUM, AND OTHER WASTE MATERIALS. ALL CONTAINERS MUST BE LEAK PROOF. ALL WASTE MATERIAL INCLUDING TOXIC OR HAZARDOUS WASTE SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.

CLEAN HARD FILL

BRICKS, HARDENING CONCRETE, AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATER RESOURCES OR WETLANDS. CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED OF INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.

CONSTRUCTION AND DEMOLITION DEBRIS (C&DD)

ALL C&DD SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORO) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE (OAC) 3745-20).

CONSTRUCTION CHEMICAL COMPOUNDS

AREAS SHALL BE DESIGNATED FOR THE MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORM WATER DRAINAGE AREAS.

EQUIPMENT FUELING AND MAINTENANCE

ALL FUEL LIQUID TANKS AND DRUMS SHALL BE STORED IN A MARKED STORAGE AREA. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. VEHICLE FUELING AND MAINTENANCE SHALL OCCUR IN DESIGNATED AREAS. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORM WATER DRAINAGE AREAS.

SPILL PREVENTION CONTROL AND COUNTERMEASURES

A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE GROUND TANK STORAGE OF 1330 GALLONS, OR BELOW GROUND STORAGE OF 42,000 GALLONS OF FUEL.

CONCRETE WASH WATERS

CONCRETE CHUTE OR OTHER CONCRETE WASH WATERS SHALL BE DISCHARGED INTO DESIGNATED AREAS ONLY. DESIGNATED AREAS SHALL BE IDENTIFIED WITH SIGNAGE AND LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORM WATER DRAINAGE AREAS.

CONTAMINATED SOILS

ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs). RUNOFF FROM CONTAMINATED SOILS SHALL NOT BE DISCHARGED FROM THE SITE. PROPER PERMITS SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.

SPILL REPORTING REQUIREMENTS

IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, THE EASTLAKE FIRE DEPARTMENT SHALL BE CONTACTED AT (440) 951-2287.

IN THE EVENT OF A LARGER RELEASE (25 OR MORE GALLONS) OF PETROLEUM WASTE, CONTACT OHIO EPA AT 1-800-282-9378, THE EASTLAKE FIRE DEPARTMENT, AND THE LAKE COUNTY EMERGENCY MANAGEMENT AGENCY AT (440) 350-5499.

OPEN BURNING

OPEN BURNING IS NOT PERMITTED.

DUST CONTROLS AND SUPPRESSANTS

USED OIL SHALL NOT BE USED AS A DUST SUPPRESSANT. DUST CONTROLS MAY INCLUDE 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.

STREAM CROSSINGS

STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF STONE, ROCK, OR CLEAN RECYCLED CONCRETE. SOIL OR EARTHEN MATERIAL MAY NOT BE USED. A 20 FOOT STONE APRON ON EITHER SIDE OF THE STREAM SHALL BE CONSTRUCTED TO PREVENT LOCALIZED SEDIMENTATION. THE CHANNEL BED AND BANKS SHALL BE RESTORED, AND ALL DISTURBED AREAS OF THE BANK WITHIN 50 FEET OF THE STREAM SHALL BE STABILIZED WITH SEED AND STRAW MULCH WITHIN 2 DAYS OF THE DISTURBANCE.

PERMITS

THIS SITE IS COVERED UNDER OHIO EPA GENERAL CONSTRUCTION PERMIT #3GC08394*AG
THIS SITE IS COVERED UNDER OEPA/ ARMY 401/ ARMY 404 PERMIT #___/NA___.

STRUCTURAL BMPs

PERMANENT BMPs FOR POST CONSTRUCTION TREATMENT OF STORM WATER (CONVERSION OF SEDIMENT LAND TO STORM WATER POND) SHALL NOT BE INSTALLED UNTIL 70% OF THE DISTURBED AREA IS STABILIZED.

SEEDING AND MULCHING

SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH THE REQUIREMENTS OF O.D.O.T. ITEM 659 OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING MIXTURES SHALL BE USED FOR SEEDING:

GENERAL USE (ODOT 659.09, CLASS 1)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
KENTUCKY BLUEGRASS	3 LBS./1000 SQ FT	10-20-10 @ 20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE
CREEPING RED FESCUE	3 LBS./1000 SQ FT		
ANNUAL RYEGRASS	2 LBS./1000 SQ FT		
PERENNIAL RYEGRASS	2 LBS./1000 SQ FT		

ROADSIDE DITCHES AND SWALES (ODOT 659.09, CLASS 2)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
PERENNIAL RYEGRASS	1.5 LBS./1000 SQ FT	10-20-10 @ 20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE
KENTUCKY 31 FESCUE	2.0 LBS./1000 SQ FT		
KENTUCKY BLUEGRASS	1.5 LBS./1000 SQ FT		

STEEP BANKS, CUT SLOPES, DETENTION AREAS			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
CROWN VETCH	0.9 LBS./1000 SQ FT	10-20-10 @ 20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE
PERENNIAL RYEGRASS	1.8 LBS./1000 SQ FT		
ANNUAL RYEGRASS	0.3 LBS./1000 SQ FT		

TEMPORARY EROSION CONTROL (ODOT 659.09, CLASS 7)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
ANNUAL RYEGRASS	2.02 LBS./1000 SQ FT	10-20-10 @ 20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE

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SWP3 NOTES

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Specifications for Permanent Seeding

Site Preparation

1. Sloping, plain, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximum infiltration will help control both runoff rate and water quality). Seeding should be done when the soil moisture is low enough to allow the soil to crack or fracture. Seeding shall not be done on sloping areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seeded preparation and seeding.
3. Topsoil shall be applied where needed to establish vegetation.

Seedbed Preparation

1. Lime—Agricultural grade limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.
2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analysis.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-bottom harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when concentrated by hand. For winter seeding, see the following section on dormant seeding.

Dormant Seeding

1. Seeding should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

- From October 1 through November 20, prepare the seedbed, add the specified amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilizer, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cutbacker seeder, or hydro-seeder slurry (may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except where a cutbacker type seeder is used, the seedbed should be firm following seeding operations with a cultipacker, roller, or light track. On sloping land, seeding operations should be on the contour where feasible.

Matching

1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials:
 - Straw—straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 80 pounds (one to three bales) per 1,000-sq. ft. The mulch shall be applied uniformly by hand or mechanically applied as the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
 - Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 48 lb./1,000 sq. ft.
 - Other—Other acceptable mulches include rolled erosion control matting or blankets applied according to manufacturer's recommendations or seed chips applied at 6 tons per acre.

Specifications for Temporary Seeding

Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be freely chopped but, generally, be left longer than 6 inches.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Vegri-Tack, DCA-70, Petosec, Terra Tack or equivalent) may be used at rates specified by the manufacturer.
- Wood Cellulose Fiber—Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Table 7.10.2 Permanent Seeding

Seed Mix	Seeding Rate		Notes
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Crested Red Fescue	20-40	15-31	For cover mowing & for waterways with <2.0 ft/sec velocity
Domestic Ryegrass	10-20	14-12	
Kentucky Bluegrass	20-40	15-31	
Tall Fescue	40-50	31-34	
Turf-type (Dwarf) Fescue	80	2-14	
Slope Banks or Cut Slopes			
Tall Fescue	40-50	31-34	
Crested Red Fescue	10-20	14-12	Do not seed later than August
Tall Fescue	20-30	15-34	
Floratia	20-30	15-34	Do not seed later than August
Tall Fescue	20-30	15-34	
Road (Shoulder and Swale)			
Tall Fescue	40-50	31-34	
Turf-type (Dwarf) Fescue	80	2-14	
Kentucky Bluegrass	5	0.1	
Lawn			
Kentucky Bluegrass	100-120	2	
Kentucky Bluegrass	100-120	2	For shaded areas
Crested Red Fescue	100-120	1-12	

Note: Other approved seed species may be substituted.

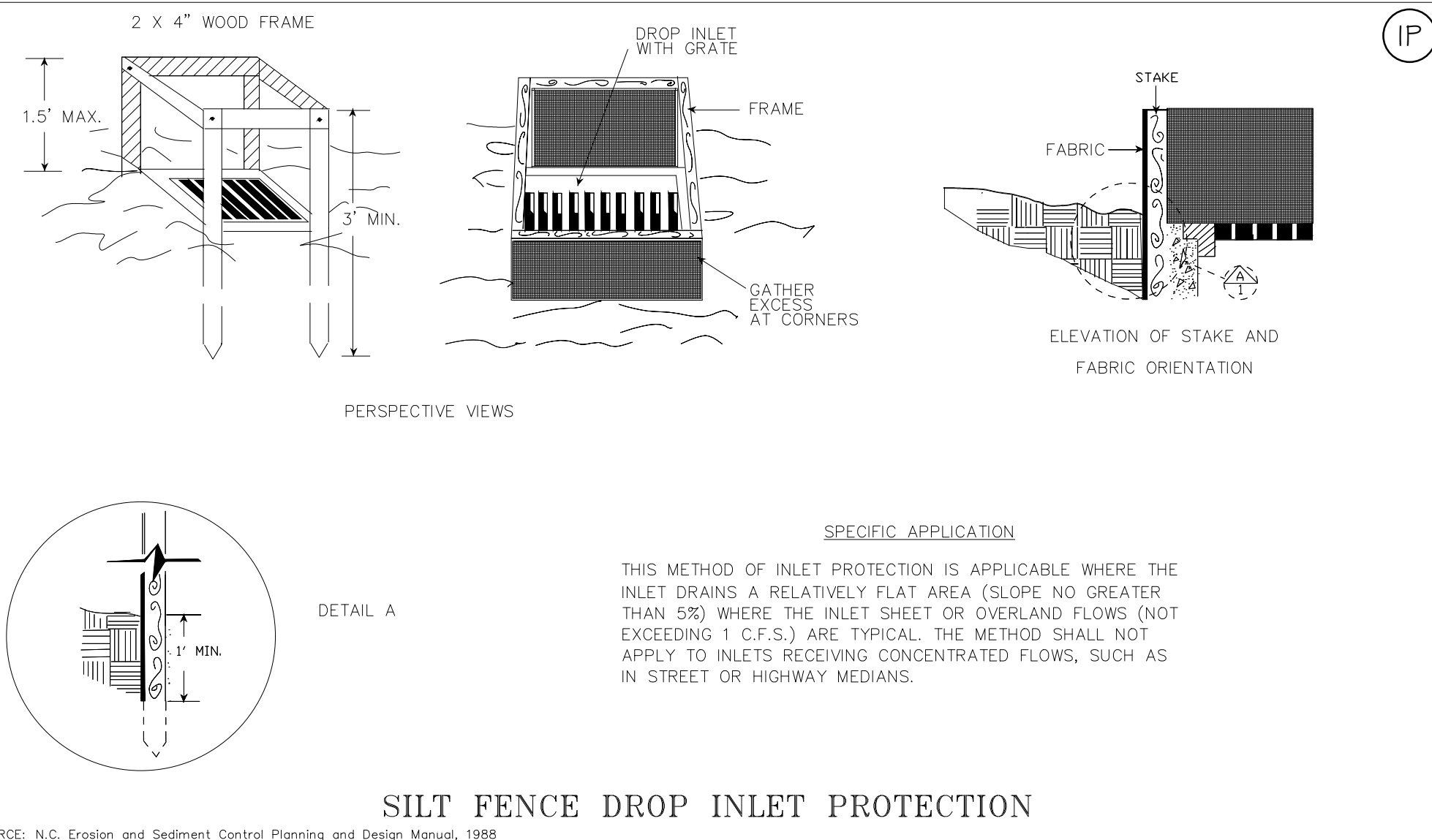
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Specifications for Temporary Seeding

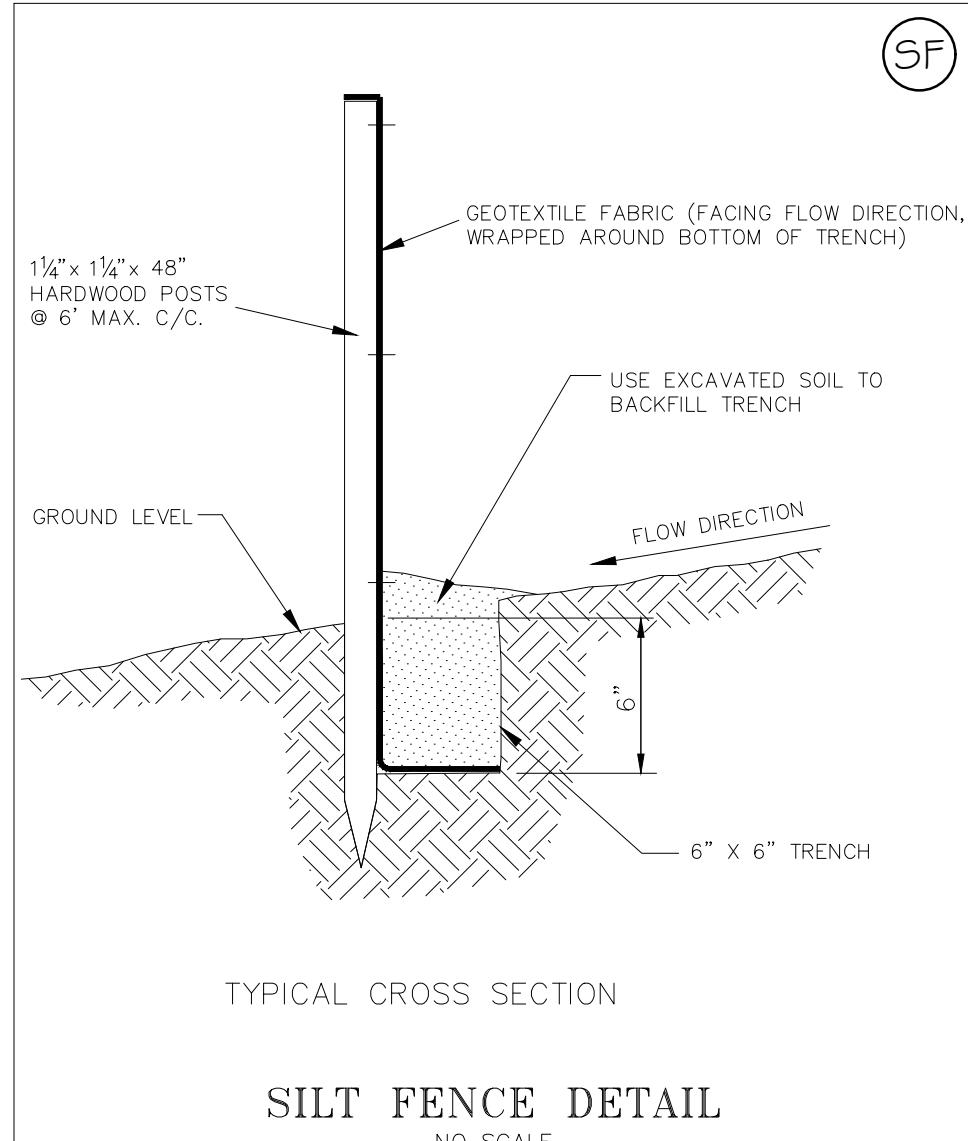
Table 7.8.1 Temporary Seeding Species Selection

Seeding Dates	Species	Lb./1000 sq. ft.	Lb./Acre
March 1 to August 15	Grass	2	128 (3 bushels)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40
August 16th to November	Grass	3	128 (3 bushels)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40
November 1 to Feb. 28	Grass	3	128 (3 bushels)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40

1. Structural erosion and sediment control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 21 days or greater. These site areas shall be seeded within 7 days after grading.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. Temporary seeding should not be postponed if final seedbed preparation is not possible.
4. Soil Amendments—Temporary vegetation seeding rates shall establish adequate stands of vegetation, which may require the use of soil amendments. Base rates for lime and fertilizer shall be used.
5. Seeding Method—Seed shall be applied uniformly with a cyclone spreader, drill, cutbacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

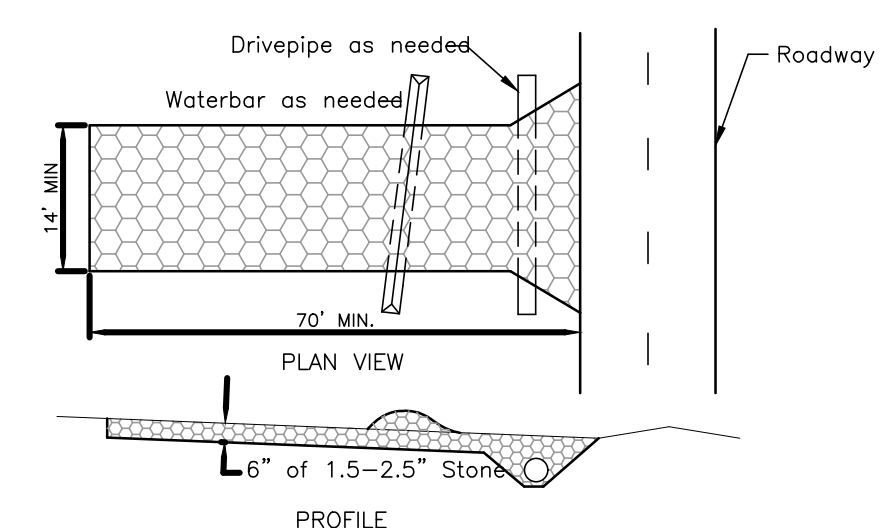


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CD

Specifications for Construction Entrance



1. Stone Size — ODOT #2 (1.5–2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length — The construction entrance shall be as required to stabilize high traffic areas but not less than 70 ft. (except on single residence for where a 30-ft. minimum length applies).
3. Thickness — The stone layer shall be at least 6 in. thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width — The entrance shall be at least 14 ft. wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile — A geotextile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:
 - Geotextile Specification for Construction Entrance
 - Minimum Tensile Strength 200 lbs
 - Minimum Puncture Strength 80 psi
 - Minimum Tear Strength 50 lbs
 - Minimum Burst Strength 320 psi
 - Minimum Elongation 20%
 - Equivalent Opening Size EOS<0.6 mm.
 - Permittivity 1x10–3 cm/sec.
6. Timing — The Construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert — A pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces.
8. Water Bar — A water bar 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 on to paved surfaces.
9. Maintenance — Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
10. Construction Entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction site shall be restricted from muddy areas.
11. Removal — the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

CW

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 structures 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 erected 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.

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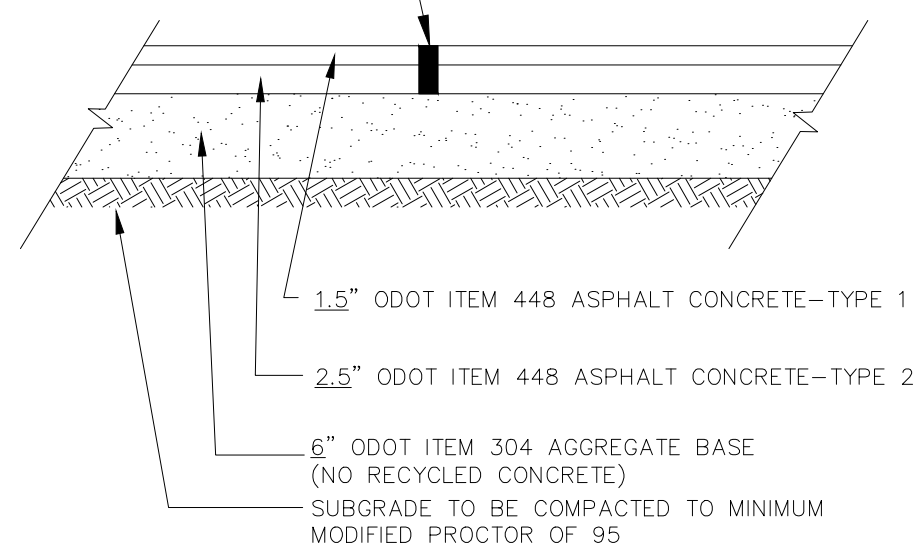
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SWP3 DETAILS

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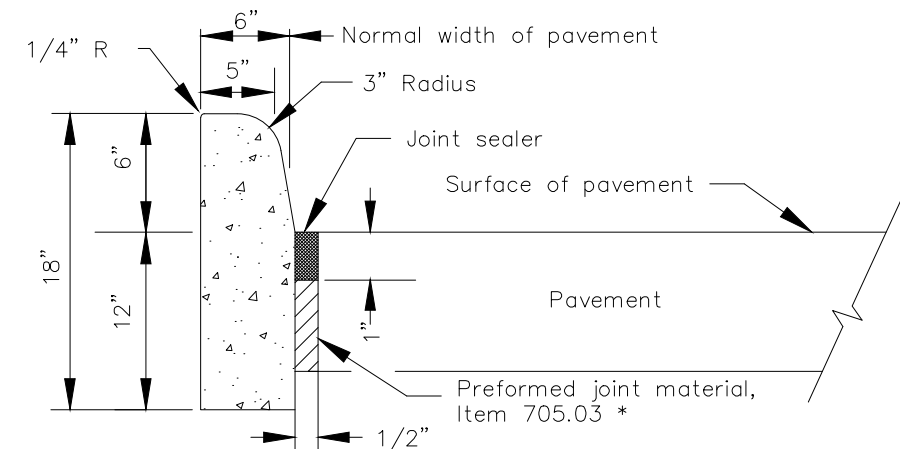
SOIL TESTING REQUIRED ON FILL PRIOR TO PAVEMENT DESIGN

ASPHALT CONCRETE THICKNESS IS 4" BASED ON CBR RESULTS (OF 4) SUPPLIED BY OWNER.

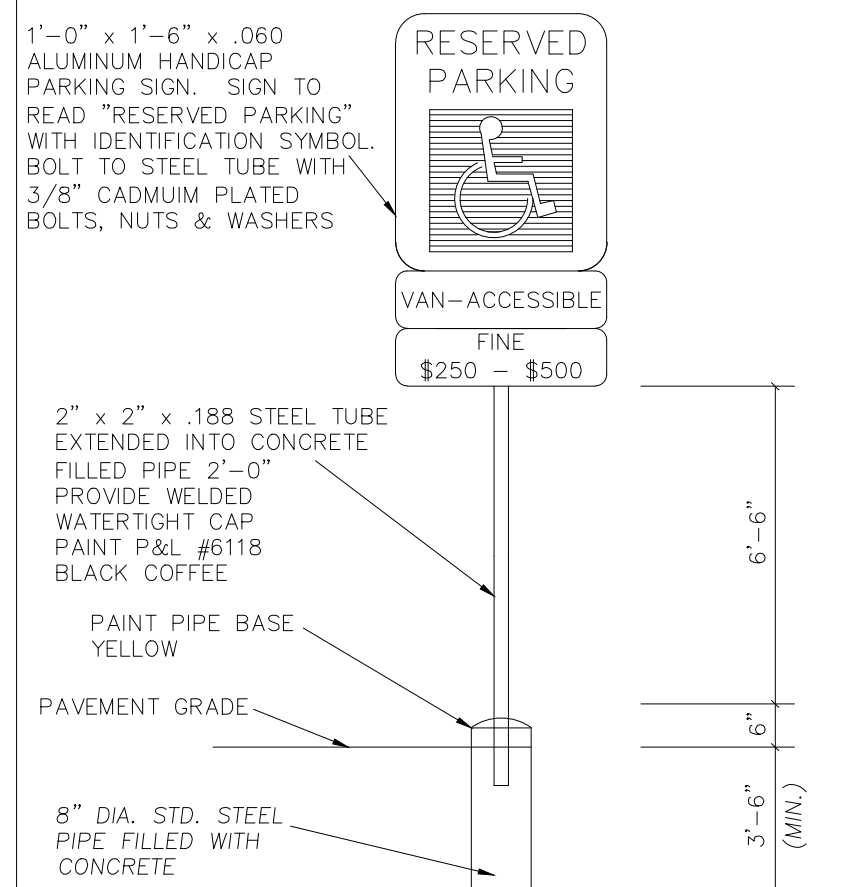


PROOF ROLL REQUIRED IN PRESENCE OF DESIGN OR GEOTECHNICAL ENGINEER

ASPHALT PAVEMENT SECTION
NO SCALE



TYPE 6 CONCRETE CURB
NO SCALE



HANDICAP PARKING SIGN (IN PAVEMENT)
NO SCALE

NOTE: HANDICAP PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS

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MATERIAL SPECIFICATIONS

STORM SEWER
STORM SEWER (RCP) 12" TO 15" SHALL BE C76 CL.IV.
STORM SEWER (RCP) 18" AND OVER TO BE C76 CL.III.

STORM SEWER (VCP) 10" AND UNDER SHALL BE C-700 E.S.
STORM SEWER 10" AND UNDER MAY ALSO BE CL. 52 D.I.P. WHERE NOTED.

ALTERNATE: ADS N-12 OR HANCOOR HI-Q (OR EQUAL) INSTALLED PER
ODOT SUPPLEMENT SPEC. 820 AND AS PER LAKE COUNTY TRENCH AND BEDDING
SPECIFICATIONS FOR PLASTIC PIPE.

SANITARY SEWER
PVC SDR 26 OR CL. 52 DUCTILE IRON PIPE.
SANITARY LATERALS LESS THAN 3' COVER IN GRASS AREAS OR LESS THAN 4' COVER IN PAVED AREAS ARE
REQUIRED TO BE D.I.P. OTHERWISE, PVC IS ACCEPTABLE IF MORE THAN MINIMUM COVER IS PROVIDED.
DUCTILE IRON PIPE SHALL CONFORM TO AWWA C150 AND C151, THICKNESS CL. 52 MINIMUM; FITTINGS
SHALL CONFORM TO AWWA C-153; JOINTS SHALL CONFORM TO AWWA C111 WITH RUBBER GASKETS.
SANITARY SEWER BEDDINGS SHALL CONFORM TO ASTM C12 CLASS B.

WATERLINE
ALL WATERLINE MATERIAL AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH PAINESVILLE
WATER SPECIFICATIONS.

GAS
PLASTIC-DRISCO PIPE 8000 SDR 11 PER DOMINION EAST OHIO GAS CO.

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GENERAL NOTES

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