PLANNING COMMISSION AGENDA



Planning Commission Meeting Wednesday, July 19, 2017 at 6:00 p.m.

Village Administration Building 99 High Street South Lebanon, Ohio 45065

	Agenda Item
1.	Call to Order
2.	Pledge of Allegiance
3.	Roll Call
4.	Open Forum
5.	Review and Approval of Minutes
	A. Minutes of March 28, 2017
6.	Public Hearing - None
7.	Old Business
	A. None
8.	New Business
	A. Case 17-07P: Application for Site Plan Approval for Primrose School, 719 Corwin Nixon Boulevard
9.	Communications
10.	Adjournment

Members of the public may address the Planning Commission during the Open Forum segment of the agenda and shall be limited to five minutes each. After the speaker concludes remarks, the Planning Commission may comment or ask questions at that time. The Chairperson may at his or her discretion restrict duplicate testimony on a particular subject.



Village of South Lebanon 99 N. High St. South Lebanon, Ohio 45065 (513)494-2296 Fax:(513)464-1656

www.southlebanonohio.org

Planning Commission Meeting MEETING MINUTES March 28, 2017

Members Present:

Tom Hunsche Dennis Rees Bill Madison Jim Smith Members Absent:
Darrick Zucco

Staff:
Jerry Haddix,
Administrator
Brianna Yarbrough,
Clerk

- 1. Call to order at 5:30 PM
- 2. Pledge of Allegiance

3.

- 4. Roll Call
- 5. Open Forum
- 6. Review and Approval of Minutes of February 1, 2017. After the minutes were reviewed, a motion to approve was made by Tom Hunsche and was seconded by Denis Rees. A vote was taken: All YEAS
- 7. Public Hearing: None
- 8. Old Business: None
- 9. New Business:
 - a) Case 17-04P: Application for Approval of the Final Development Plan and Construction Drawings for Wynstead Section 4 Subdivision. Application was submitted by Grand Communities, LTD (Fischer Homes) on February 9, 2017. Fischer Homes submitted the FDP for Section 4 of Wynstead Subdivision Consisting pf 42 single family lots comprising 7.824 acres. This is a continuation of the Wynstead development. This section will complete Castle Drive between Emerald Drive and Windsor Court. Bayer Becker, the Developer's engineer, has made corrections from Choice One Engineering and the Warren County Water Department. Awaiting comments from the Hamilton Township Fire Department. Due to the consistency of

the FDP with the Preliminary Development Plan, staff recommends that the Planning Commission adopt a motion to approve the Final Development plan and Construction Drawings with the following conditions:

- 1) Enter into a Development Agreement with the Village and fulfill bonding requirements as required by the Village Solicitor in accordance with the Village Zoning Regulations;
- 2) Review and approve the "Declaration of Covenants and Restrictions" by the Village Solicitor; and
- 3) Approval the Construction Drawings by the Hamilton Township Fire Department

A motion to approve the Final Development Plan & Construction Drawings for Wynstead Section 4 was made by Tom Hunsche and was seconded by Dennis Rees. A vote was taken: 4 YEAS, Tom Hunsche voted NAY.

- b) Case 17-05P: Application for approval of the Final Record Plat for the Woodknoll Section 4 Subdivision. Application was submitted by McCarty Associates, LLC, on behalf of Shepherds Crossing Developments, LLC. On June 27, 2016, the Village Planning Commission approved the preliminary plat for sail Property. The property is comprised of 5.483 acres between Mary Lane Extension and Sunset Drive. This plat will create 12 single family lots and one open space lot. The present zoning designation is R-3 Planned Unit Development (PUD) which was part of the original Woodknoll development. The Final Record Plat has been sent to the Village's engineer on the development, Choice One Engineering, as well as the Warren County Tax Map Department. Staff recommends that the Planning Commission adopt a motion to approve the Final Record Plat and authorize Chairman Zucco to sign the Mylar with the following Conditions:
 - 1) Comply with all comments from the Village Engineer, Warren County Tax Map Department or any other reviewing agency
 - 2) Provide the statements pursuant to Section 15.20.10 of Village Subdivision Regulations.
 - 3) Per Village Subdivision Regulations: developer is to enter into a Development Agreement with the Village Council for approval of Record Plat.

A motion to approve the Final Record Plat for the Woodknoll Section 4 Subdivision was made by Tom Hunsche and seconded by Bill Madison. A vote was taken: all YEAS.

- c) Case 17-06P: Application for approval of the Final Record Plat for the Shephard's Crossing Section 2 Subdivision. Application was submitted by McCarty Associates, LLC, on behalf of Shepherd's Crossing Development, LLC. On June 27, 2016, the Village Planning Commission approved the preliminary plat for said property, which, at that time, was known as Woodknoll Section 5A. Due to the access solely coming from the Shepherd's Crossing subdivision, the Developer has decided to name it after the connecting side. This plat will create 17 single family lots. The present zoning designation is R-3 Planned Unit Development (PUD) whish was part of the original Woodknoll development. The Final Record Plat has been sent to Choice One Engineering, as well as the Warren County Tax Map Department for review. Staff recommends that the Planning Commission adopt a motion to approve the Final Record Plat and authorize Chairman Zucco to sign the Mylar with the following conditions:
 - 1) Comply with all comments from the Village Engineer, Warren County Tax Map Department or any other reviewing agency;
 - 2) Provide the statements pursuant to Section 15.20.10 of Village Subdivision Regulations; and

3) Per Village Subdivision Regulations: developer to enter into a Development Agreement with the Village Prior to Village Council approval of Record Plat.

A motion to approve the Final Record Plat for the Shepherd's Crossing Section 2 Subdivision was made by Bill Madison and seconded by Dennis Rees. A vote was taken: All YEAS.

10. Communications: None				
11. Jim Smith made a motion to adjourn. Motion was seconded by Bill Madison. A vote was YEAS.				
Darrick Zucco – Chairman	Brianna Yarbrough - Clerk			

VILLAGE OF SOUTH LEBANON MEMORANDUM

TO: Planning Commission

FROM: Jerry Haddix, Village Administrator

RE: Case 17-07P, Site Plan Review for Primrose School of South Lebanon

DATE: July 17, 2017

On the agenda for the July 19th meeting is an application for approval of the site plan and landscape design for the Primrose School of South Lebanon to be located at 719 Corwin Nixon Boulevard located behind Speedway and is Lot One (1) of the Rivers Crossing West Section One Subdivision (the "Project") submitted by Community Civil Engineers, the Project Engineer for the Project (the "Applicant").

Background

The Project that is the subject of the application is located on 1.66 acres adjacent to Speedway to the south. The property is currently owned by Rivers Crossing Power, LLC. The present zoning classification is B-2 General Business District. The proposed Project consists of a 12,300 s.f early learning center/day care with access provided by a private access easement from Corwin Nixon Boulevard along the west side of Speedway. In addition to the building, there would be 16,641 s.f. of playground area which would be divided by age groups.

Due to the geometry of the lot (right triangle) and surrounding geography, this lot presents many challenges to site layout, including utility easements along the State Route 48 side. The Applicant has attempted with relative success to fulfill all of the Village's site plan requirements with this non-standard lot.

The Applicant received a Conditional Use Permit from the Village Board of Zoning Appeals for this Project on May 30, 2017. The Applicant also received approval for an offsite sign that could be located at their entrance on Corwin Nixon Blvd.

The Union Township Fire Department has not submitted any written comments to date.

Due to an oversight on my part, our engineer just received the stormwater management plan and is currently reviewing it.

Zoning Code Analysis

Upon review of the plans, it has been determined that the drawings generally satisfy the Zoning Regulations and Design Guidelines and Standards with the exceptions listed in the attached letter and accompanying site plan approval checklist.

Zoning Process

Pursuant to Article 18 of the Village Zoning Regulations, the development of any new use or construction of any new structures shall require site plan approval prior to construction and/or occupancy. At the first regular meeting at which a site plan proposal is considered, the Commission shall first determine whether to accept the plan for processing. If accepted for processing, the Commission shall review the site plan in relation to applicable standards and regulations, and in relation to the intent and purpose of the Village Zoning Regulations and Design Guidelines and Standards. The Commission shall consider the comments and recommendations from the Village Administrator, the Village Engineer, public safety officials and other reviewing agencies.

If the Commission determines that revisions are necessary to bring the site plan into compliance with applicable standards and regulations, the applicant shall be given the opportunity to submit a revised site plan. The Commission shall review the revised site plan and application materials within 30 days after the Village received a complete revised site plan application.

The Commission shall make a determination on a site plan based on the requirements and standards in the Zoning Regulations and Design Guidelines and Standards. The Commission is authorized to grant approval, grant approval subject to conditions, or reject a site plan. If the Commission chooses to grant approval subject to conditions, the Commission may waive its right to review the revised plan, and instead authorize the Zoning Administrator, or his designee, to review and recommend approval of the resubmitted plans if all required conditions have been addressed.

If construction is not started within 18 months of final approval of the site plan, the site plan approval becomes null and void and a new application for site plan review shall be required.

Recommendation

Staff recommends that the Planning Commission grant its approval of the site plan and landscape plan for the Primrose School of South Lebanon with the following conditions:

Prior to issuance of a zoning permit, the applicant must resubmit the site plan and provide the following information to the Zoning Administrator:

- 1. Addressing the comments in the attached Site Plan Approval Checklist to the satisfaction of the Village Administrator and Choice One Engineering;
- 2. Address any review comments relative to the stormwater management plan,
- 3. Meet the requirements of the Union Township Fire Department;
- 4. Signage will be reviewed separately by the Zoning Administrator at a later date

Attachments

Planning Commission Application Site Plan and Landscape Plan Village Engineer Checklist

VILLAGE OF SOUTH LEBANON PLANNING COMMISSION APPLICATION

1. Application Type: (check the appropriate box) (all plans must be folded when submitted)

	Draft Plan-Discussion Only	Preliminary PUD
X	Site Plan	Final PUD
X	Landscape Plan	Rezoning
X	Construction Drawings. (Please complete Fee Schedule form on Page 2)	Lot Split
	Preliminary Plat (Please compete Fee Schedule form on Page 2)	Conditional Use
	Final Plat or Replat	Special Meeting
	Right-of-Way Dedication Plat	Other:

(See Page 3 for complete Fee Schedule and Submittal Requirement Information)

2. Development Information:

Development/Business Name: Primrose of South Lebanon			
Type of Business/Project Description: Early Childhood Edu	ication/Day care		
Location: 719 Corwin-Nixon Blvd	Size of Building: 12,500sf +/-		
Current Zoning: B-2	Rezone to: N/A		
Total Acreage: 1.66 Ac	Acres to be Rezoned: N/A		
Number of Employees: 22	Number of Fleet Vehicles: N/A		
Current Owner of the Property	Project Contact (Architect, Engineer, Planner)		
Name: Rivers Crossing Power, LLC c/o IRG Realty Advisors, LLC	Name: Community Civil Engineers		
Address: 4020 Kinross Lakes Parkway, Suite 200	Address: 2440 Dayton Xenia Road, Suite B		
City: Richfield State: OH Zip: 44286	City: Beavercreek State: Oh Zip:45434		
Telephone: 330-659-4060 Fax:	Telephone: 937.490.9460 Fax:		
Applicant(s): Same as Engineer			
Address:			
City: State:	Zip:		
Telephone: Fax:			
Please Print Applicant's Name Here: Stephen Butler			
* Applicant's Signature:			
* Applicant is responsible for payment of all fees (See Fee Schedule and Footnotes on Pages 3 and 4 respectively.)			

T	O BE COMPLET	TED BY THE VILLAC	GE OF SOUTH LEH	BANON	
Application Number:		Date of Planni	ng Commission Meeting:		
Fee Paid:	Drawn:	Check #:	Date:	Initial:	
Legal Notices Advertise	d:	Mailed to S	urrounding Property Own	ers:	

3. Rezoning and Preliminary PUD Plan Requests

<u>Surrounding Property Owners</u>: Please list the names and addresses of all **Owners of Real Property** within 300 feet of any part of the property as such names and addresses appear on the most recent tax duplicate on 2 sets of mailing labels. (See submittal requirements on page 3).

4. Signatures Required		
By signing this application, I attest under penalty of law that all the inknowledge.	information given above is correct to	the best of my
Please Print Applicant's Name: Stephen Butler		
Applicant's Signature:	Date: <u>6/16/17</u>	
Property Owner's Signature:	Date:6/15/17	
5. Fee Determination for Construction Drawings and Prelin		
Please create a detailed breakdown of the estimated infrastructure breakdown Construction Drawings complete Item 1 and for Preliminary Plats complete I		application. For
Total Infrastru	acture Cost \$ 260,000.	(A)
1 – Construction Drawing Fee Breakdown		
1.25% of Total Infrastructure Cost* (Line A x 0.0125)	\$ 3,250. °° +\$ 3,900. °°	(B)
1.50% of Total Infrastructure Cost** (Line A x 0.015)	+\$ 3,900-	(C)
Application Fee	+ \$ 150.00	(D)
Total Construction Drawing Fee (Line $B + C + D$)	\$ 7,300.00	(E)
2 – Preliminary Plat Fee Breakdown:		
0.25% of Total Infrastructure Cost* (Line A x 0.0025)	\$	(F)
Application Fee	+ \$ <u>150.00</u>	(G)
Total Preliminary Plat Fee (Line F + G)	\$	(H)
Total Paid with Application/Submittals (Line E+H)	\$	_
* Due upon submittal		

** Due prior to construction





Date

July 13, 2017

Subject

Primrose School Site Plan Review #1 Village of South Lebanon, OH Attention

Jerry Haddix Village Administrator Address

99 N. High Street South Lebanon, OH 45065

Dear Mr. Haddix:

Below and attached are our comments after reviewing the site plan and storm/detention calculations for the Primrose School for the first time. Choice One recommends the revision of the plans to account for these comments and resubmittal to us for a final review prior to approval. An electronic resubmission of these items would be acceptable to Choice One.

See attached site plan requirements checklist for additional comments.

ALTA survey notes reference that the property is in the 500 year floodplain but not the 100 year floodplain. No Village of South Lebanon floodplain development permit should be needed.

Page C3.0

Move "#3" Pentagon bubble over closer to where existing manhole needs adjusted.

Page C4.0

- Add new hatch to legend that explains what the diagonal playground hatch indicates
- Typo in site notes note #4.
- The building foundation appears to stick into the 30' utility easement. Is it possible to shift the building to the north, even if it is only 6"?
- As an FYI, the sidewalk and Ameristar fence are within the 30' utility easement as well and may need to be removed if the sanitary sewer is maintained or replaced.
- There is a flag pole and light pole on the northeast part of the site within the 30' utility easement as well that are less than 7' from the existing sanitary sewer. Can these be relocated slightly to avoid conflicts in the future? Can the light pole be moved somewhere around that parking area so that it is west of the sanitary sewer?

Bubble 27 indicates a bike rack is in the middle of the parking stall nearest the front entrance. Is this label just in the wrong spot?

Label invert of detention outlet on utility plan.

Sidney, OH 45365 937.497.0200 Phone

S. Ohio/N. Kentucky 440 E. Hoewisher Rd. 203 W. Loveland Ave. Sidney, OH 45365 Loveland, OH 45140 513.239.8554 Phone

Eastern Indiana 607 N. Meridian St. Portland, IN 47371 260.766.2500 Phone



Page C6.0

- Label finished floor elevation of the building on the grading plan.

Page PM1.0

- Foot candles over 1.0 spill onto Speedway's lot. Please shield lights from spilling over property line.

Page L.3

- Text overlap on the "Multi-stem tree planting and staking detail".

Page C9.0 and Storm/Detention

- Please submit calculations for how the detention system was sized. Currently only the storm piping from the catch basins has supporting calculations. Choice One will need to see pre vs. post calcs and what the release rates are for the outlet.
- The tailwater elevation in the CDSS calcs should be the 100 year water elevation in the underground detention system.
- Required design year for storm conduits is 25 year, not 10 year. Please revise.

Page C11.0

- Change all references of Warren County to the Village of South Lebanon. The Village follows the County's standards but the Village is who needs contacted for inspections, taps, etc.

Page C12.0

- Prime coat is not required or desired between the 304-aggregate base and the asphalt layers for the standard and heavy duty asphalt pavement section.

Ohio EPA

- Submit to the Village a copy of the Ohio EPA Notice of Intent and also inform the Village of when it was submitted and when it was approved.

ODOT

- Submit MR-505 Right-of-Way permit to Ohio Department of Transportation for clearing and fence removal work in LA R/W of S.R. 48. Provide Village with copy of approved permit.

If you have any questions, please contact our office.

Sincerely,

Nicholas J. Selhorst, P.E.

nicholas f. Delhort



Development Name:	Primrose School	Date Received	6/21/17
Reviewed By:	Nick Selhorst–Choice One Engineering	Date Reviewed	7/13/17

All items below are required for site plan approval from the Village Engineer

	Appro	oved Comments
1. Required Information Sec 15.18.20		
a. Appropriate Scale	\boxtimes	
b. Sec 15.18.20.2 (a-n)		Note variances requested and secured on the site
		plan title sheet
c. Sec 15.18.20.3 (a-x)		Foot candles over 1.0 spill onto Speedway
		property.
d. Sec 15.18.20.4 (a-g)		Building foundation within 30' utility easement
e. Sec 15.18.20.5 (a-f)		Need detention pre vs. post calculations and
		outlet rates
f. Sec 15.18.20.6 (a-l)		n/a
g. Sec 15.18.20.7 (a-b)		Estimated number of employees needed
h. Sec 15.18.20.8		
i. Sec 15.18.20.9		
2. Drainage Plan Sec 15.18.21.12		
Floodway/Floodplain Impacts		
Detention and Retention Basin Calculations		Missing dention pre vs. post calculations, drainage
		map, and outlet rates
Overflow Routing on and off-site	\boxtimes	
Storm Sewer		25 year design storm per Warren Co. standards
3. Utility Connection Plan Sec 15.18.21.15		
a. Main Extension Plan	\boxtimes	
b. Lateral Service Plan	\boxtimes	
4. Access Control Plan Sec 15.18.21.8-11,20-21		
a. Driveway Widths and Locations	\boxtimes	
b. Emergency Vehicle Access	\boxtimes	
c. Pedestrian Access	\boxtimes	
d. Coordination with Adjacent Sites	\boxtimes	
e. Barrier-free Access	\boxtimes	
5. Off-Street Parking Sec 15.12		
a. Sec 15.12.2 (1-12)	\boxtimes	
b. Sec 15.12.3 and 15.12.7	\boxtimes	
c. Sec 15.12.4	\boxtimes	
d. Sec 15.12.5	\boxtimes	
e. Sec 15.12.6	\boxtimes	
f. Sec 15.12.8	\boxtimes	
g. Sec 15.12.9	\boxtimes	
h. Sec 15.12.10		
i. Sec 15.12.11 (1-4)		
6. Erosion Control Sec 15.18.21.13		
a. Frosion Control Plan	X	



Development Name:	Primrose School	Date Received	6/21/17
Reviewed By:	Nick Selhorst–Choice One Engineering	Date Reviewed	7/13/17

7. Lighting Plan Sec 15.18.21.14		
a. Compliance with Sec 15.18.21.14		Foot candles over 1.0 spill onto Speedway
		property
8. Appearance Sec 15.18.21.3		
a. Compliance with Sec 15.18.21.3	\boxtimes	
9. Landscape Plan Sec 15.17		
a. Sec 15.17.4 (a-b)	\boxtimes	
b. Sec 15.17.5.1 (a-d)	\boxtimes	
c. Sec 15.17.6 (1-3)	\boxtimes	
d. Sec 15.17.7	\boxtimes	
e. Sec 15.17.8	\boxtimes	
6 0 17 17 0 1	<u> </u>	
f. Sec 15.17.9.1		
g. Sec 15.17.9.2 (a-c)		
h. Sec 15.17.10 (1-4)		
i. Sec 15.17.11 (1-2)		
10. Screening Sec 15.18.21.16		
a. Privacy		
b. Off-Street Parking		
c. Loading Areas	\boxtimes	
d. Dumpster Enclosure	\boxtimes	
11. All Other Items		
General Comments	F	Please revise and resubmit the plans for a final
	r	eview

PRIMROSE SCHOOL SOUTH LEBANON

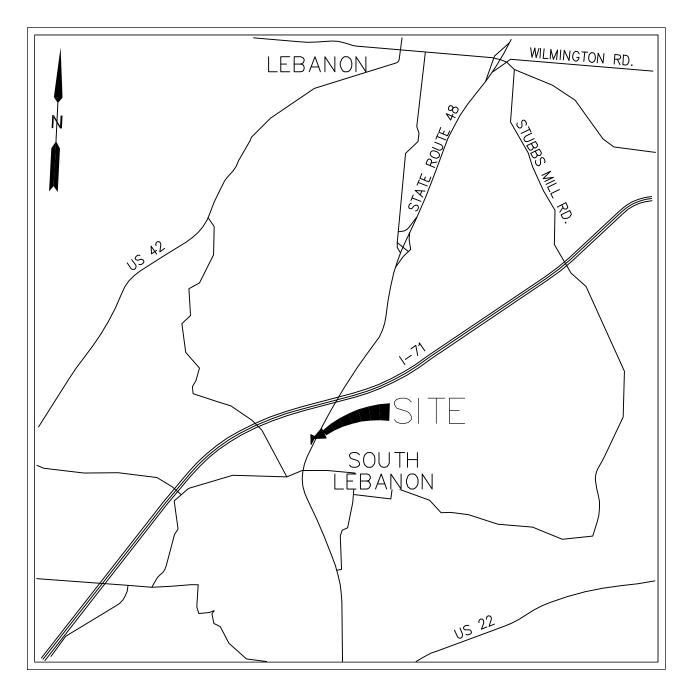
GENERAL NOTES

- 1) ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND CONFORM WITH THE VILLAGE OF SOUTH LEBANON STANDARDS AND SPECIFICATIONS FOUND AT http://southlebanonohio.org/design-and-construction-specifications/ ANY CONFLICT SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER IN CHARGE.
- 2) ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH
- THE VILLAGE OF SOUTH LEBANON STANDARDS. 3) ALL TRENCH EXCAVATION WITHIN FIVE FEET OF THE EDGE OF AN EXISTING OR PROPOSED PAVEMENT SHALL BE IN ACCORDANCE WITH ODOT ITEM 611 CONDUIT, TYPE B. PIPE TRENCHES OUTSIDE OF THE FIVE FOOT LIMIT OF THE EDGE OF AN EXISTING OR PROPOSED PAVEMENT SHALL BE IN ACCORDANCE WITH OHIO DOT ITEM 611 CONDUIT, TYPE C.
- 4) ALL COMPONENTS OF ACCESS FOR HANDICAP INCLUDING SIDEWALK, RAMPS. PARKING AND BUILDING AND PLAYGROUND ACCESS SHALL CONFORM TO THE LATEST ADA REQUIREMENTS 5) ALL FIELD TILE ENCOUNTERED SHALL BE REPLACED, REMOVED OR CONNECTED
- TO THE STORM SEWER SYSTEM. 6) CURB RAMPS TO BE LOCATED AS INDICATED ON PLANS AND CONSTRUCTED IN ACCORDANCE WITH THE OHIO DEPT OF TRANSPORTATION STD CONST DWG BP-7.1 TYPE 1.
- 7) ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHOULD NOTIFY THE FOLLOWING AGENCIES, TO OBTAIN ACCURATE FIELD LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES:

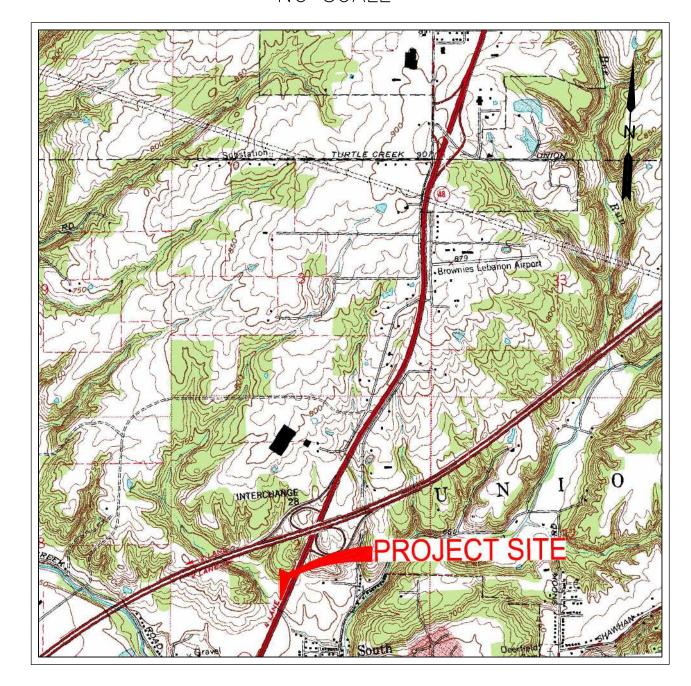
UTILITY	OWNER	TELEPHONE
ELECTRIC	DUKE ENERGY 139 E. FOURTH STREET, (PO BOX 960) CINCINNATI, OHIO 45201	(513) 287-1194
CABLE	SPECTRUM BUSINESS	(877) 283-8091
TELEPHONE	CINCINNATI BELL 221 E. FOURTH STREET (PO BOX 2301) CINCINNATI, OHIO 45201	(513) 933–3502
GAS	DUKE ENERGY 139 E. FOURTH STREET, RM 460-A CINCINNATI, OHIO 45201	(513) 287-4625
SANITARY SEWER	VILLAGE OF SOUTH LEBANON 99 N. HIGH STREET SOUTH LEBANON, OH 45065	(513) 239-8554
STORM SEWER	VILLAGE OF SOUTH LEBANON 99 N. HIGH STREET SOUTH LEBANON, OH 45065	(513) 239-8554
WATER MAINS	VILLAGE OF SOUTH LEBANON 99 N. HIGH STREET SOUTH LEBANON, OH 45065	(513) 239-8554

- THE OWNER OF THE UNDERGROUND UTILITY SHALL WITHIN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORKFORCE.
- 8) THE CONTRACTOR SHOULD NOTE THAT NOT ALL UTILITY AGENCIES ARE MEMBERS OF THE OHIO UTILITY PROTECTION SERVICE, AND WILL NEED TO BE NOTIFIED DIRECTLY.
- 9) ALL DISTURBED AREAS SHALL HAVE TEMPORARY SEEDING AND MULCHING. ALL AREAS THAT ARE PLANNED TO BE BARE FOR MORE THAN 30 DAYS SHALL BE SEEDED WITHIN 7 DAYS.
- 10) ANY VARIANCE BETWEEN THESE PLANS AND WHAT IS FOUND IN THE FIELD OR DURING
- CONSTRUCTION SHOULD BE ADDRESSED TO THE ENGINEER IN CHARGE OF THE PROJECT. 11) ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 12) TRAFFIC CONTROL ON ALL PUBLIC ROADS IS REQUIRED TO CONFORM TO "THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- 13) SAFETY REQUIREMENTS, OUTLINED IN THE STATE OF OHIO "CONSTRUCTION SAFETY CODE" FOR THIS TYPE OF WORK WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE CODE ISSUED AS A GENERAL ORDER BY THE INDUSTRIAL COMMISSION OF OHIO.
- 14) WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT EXACT ELEVATIONS MAY BE DETERMINED AND THE NECESSARY ADJUSTMENT MADE. COST OF THE ABOVE, IF ANY, WILL BE INCLUDED IN THE PRICE BID FOR THE
- 15) THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. INCLUDING PERFORMING ALL WORK IN RIGHT OF WAY AND ON-SITE. CONTACT THE BUILDING DEPT. FOR A LIST. 16) VILLAGE OF SOUTH LEBANON STANDARD DRAWINGS ARE TO BE CONSIDERED PART OF THESE PLANS
- 17) IT SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR TO IMPORT OR REMOVE ANY EXCESS EARTH OR TOPSOIL WITH PAYMENT FOR THIS TO BE A PART OF CONTRACT. 18) THE SOILS REPORT FOR THIS PROJECT SHALL BE REFERENCED AT ALL TIMES.
- 19) CONTRACTOR SHALL MAINTAIN INSPECTION AND MAINTENANCE LOGS OF EROSION CONTROL DEVICES IN CONFORMANCE WITH OHIO EPA RULES AND REGULATIONS.
- 20) CONTRACTOR SHALL PREPARE AN IRRIGATION PLAN AND SUBMIT TO THE ARCHITECT PRIOR TO INSTALLATION.

ZONED B-2719 CORWIN-NIXON BLVD. VILLAGE OF SOUTH LEBANON WARREN COUNTY OHIO



VICINITY MAP NO SCALE



INDEX OF SHEETS

TITLE SHEET	C1.0
ALTA SURVEY	C2.0
EXISTING FEATURES PLAN	C3.0
SITE PLAN	C4.0
UTILITY PLAN	C5.0
GRADING PLAN	C6.0
SWPPP	C7.0
SWPPP DETAILS	C8.0
DRAINAGE PLAN	C9.0
DETENTION BASIN DETAILS	C10.0
VILLAGE STANDARD NOTES	C11.0
VILLAGE STANDARD DETAILS	C11.1
SITE DETAILS	C12.0
SITE DETAILS	C12.1
SITE DETAILS	C12.2
PHOTOMETRIC PLAN	PM1.
RETAINING WALL PLAN	S1.0
LANDSCAPE PLAN	L1.0
GROUND COVER PLAN	L2.0
LANDSCAPE DETAILS AND NOTES	L3.0
	ALTA SURVEY EXISTING FEATURES PLAN SITE PLAN UTILITY PLAN GRADING PLAN SWPPP SWPPP DETAILS DRAINAGE PLAN DETENTION BASIN DETAILS VILLAGE STANDARD NOTES VILLAGE STANDARD DETAILS SITE DETAILS SITE DETAILS SITE DETAILS PHOTOMETRIC PLAN RETAINING WALL PLAN LANDSCAPE PLAN GROUND COVER PLAN

CIVIL ENGINEER:



architecture ALT Architecture Inc. Architecture - Engineering

ARCHITECT:

Suite B 2440 Dayton-Xenia Road Beavercreek, Ohio 45434 937 427 2770 voice 937 426 9798 fax info@altarchitecture.com

Interior Architecture - Planning

OWNER

4020 KINROSS LAKES

TEL. 330.659.4060

RICHFIELD, OHIO 44286

BUYER RIVER CROSSING POWER LLC

PRIMROSE SCHOOL FRANCHISING COMPANY 3660 CEDARCREST ROAD, ACWORTH, GA 30101 TEL. 770.529.4100

APPLICANT

COMMUNITY CIVIL ENGINEERS, LLC 2440 DAYTON XENIA ROAD, STE B BEAVERCREEK, OHIO 45434 TEL. 937.490.9460

SANITARY MANHOLE LOCATED NEAR SOUTH PROPERTY CORNER. INVERT ELEVATION - 638.43

BENCHMARK #2

EXISTING FIRE HYDRANT LOCATED ON NORTHWEST PROPERTY CORNER OF SPEEDWAY PROPERTY, ARROW BOLT ELEVATION - 673.13

BENCHMARK #3

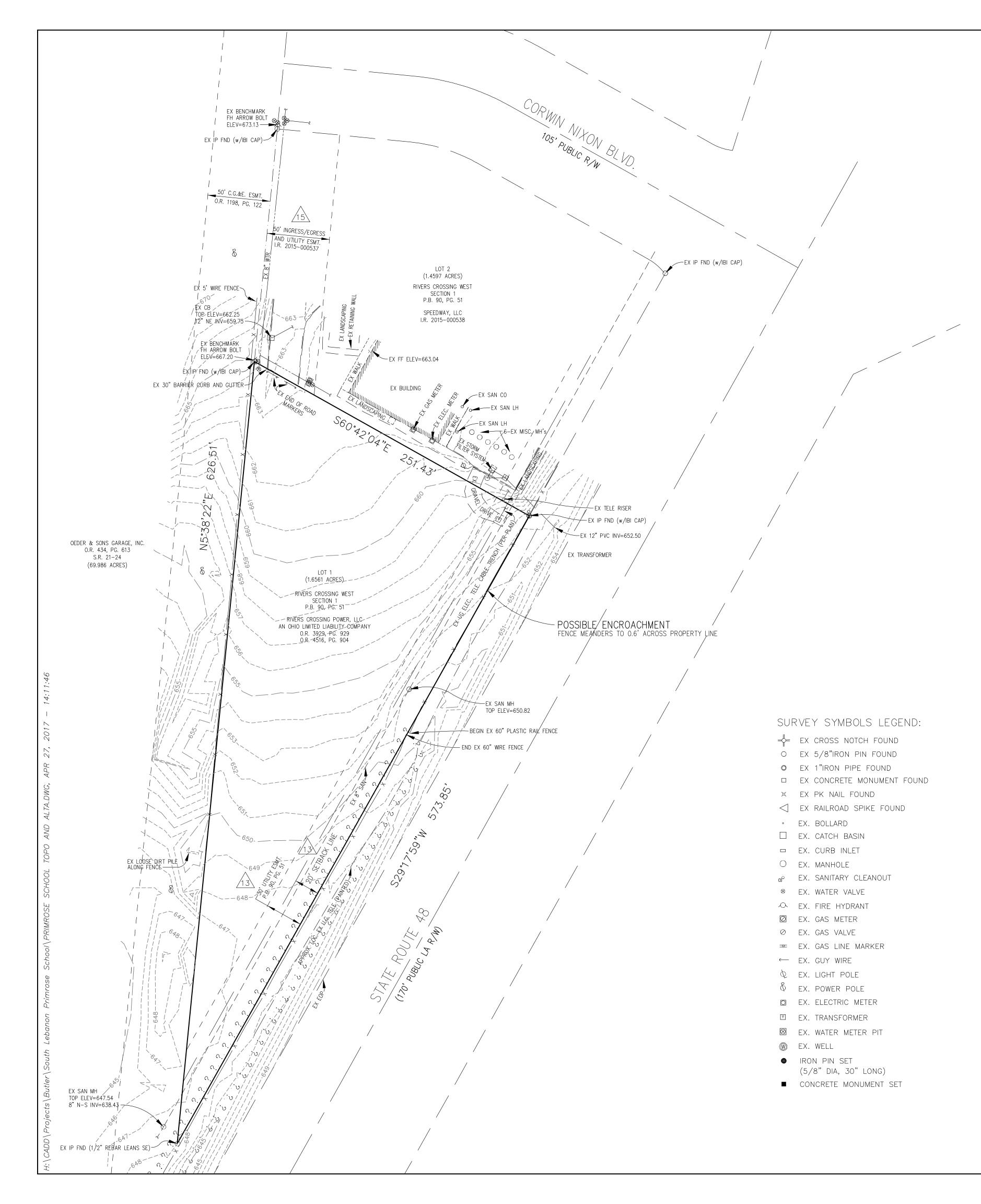
EXISTING FIRE HYDRANT LOCATED NEAR NORTHWEST PROPERTY CORNER ARROW BOLT ELEVATION - 667.20

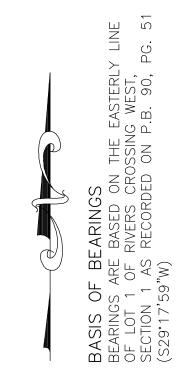


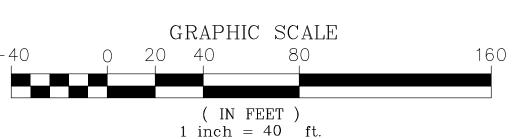
THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTORS FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION, NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.

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DESCRIPTION:

SITUATED IN SECTION 2, TOWN 4, RANGE 3, VILLAGE OF SOUTH LEBANON, UNION TOWNSHIP, WARREN COUNTY, OHIO, AND BEING ALL OF LOT 1 OF RIVERS CROSSING WEST, SECTION 1 AS RECORDED IN PLAT BOOK 90, PAGE 51, OF THE WARREN COUNTY RECORDER'S OFFICE.

PARCEL NO. 1202351006

SCHEDULE BII EXCEPTIONS:

STEWART TITLE GUARANTY COMPANY COMMITMENT NO. 17RB0153-7 EFFECTIVE DATE APRIL 05, 2017, TO BE CONSIDERED A PART OF THIS SURVEY.

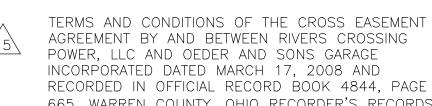


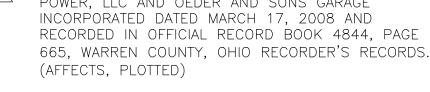
BUILDING SETBACKS, EASEMENTS AND OTHER MATTERS AS SHOWN ON THE SUBDIVISION PLAT SET FORTH IN PLAT BOOK 90, PAGE 51, INCLUDING BUT NOT LIMITED TO:

(a) A PUBLIC UTILITY EASEMENT OVER THE EASTERLY 30 FEET OF THE PREMISES. (b) A 20 FOOT SETBACK FROM STATE ROUTE 48. (AFFECTS, PLOTTED)



EASEMENT IN FAVOR OF THE CINCINNATI GAS & ELECTRIC COMPANY FOR AN ELECTRIC SERVICE LINE IN AN INDEFINITE LOCATION OVER THE PARENT TRACTS DATED FEBRUARY 14, 1948 AND RECORDED IN DEED BOOK 179, PAGE 544, WARREN COUNTY, OHIO RECORDER'S RECORDS. (NOT PLOTTED, CAN NOT BE DETERMINED)







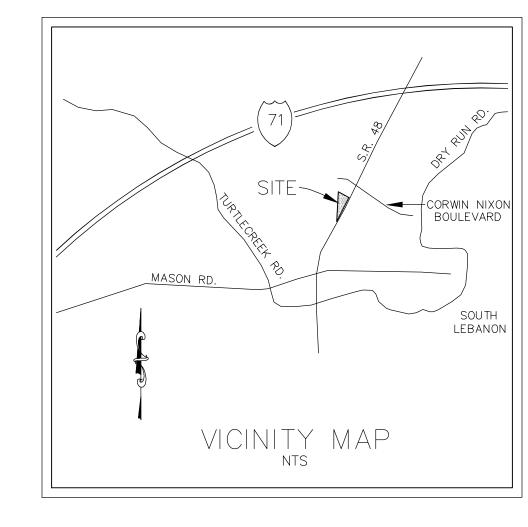
ACCESS GRANT BY AND BETWEEN STATE OF OHIO AND RIVER'S CROSSING POWER, LLC DATED JUNE 26, 2014 AND RECORDED IN DOCUMENT NO. 2014-018129, WARREN COUNTY, OHIO RECORDER'S RECORDS. (DOES NOT AFFECT, NOT PLOTTED, NEW POINT OF ACCESS AT CORWIN NIXON BOULEVARD, ELIMINATED POINT OF ACCESS NORTH OF CORWIN NIXON BOULEVARD.)



EXCAVATION ACTIVITIES.

TERMS, CONDITIONS AND EASEMENTS CONTAINED IN THE DECLARATION OF PRIVATE ACCESS AND UTILITY EASEMENT BY AND BETWEEN RIVER'S CROSSING POWER, LLC AND THE VILLAGE OF SOUTH LEBANON DATED JANUARY 29, 2014 AND RECORDED IN DOCUMENT NO. 2015-000537, WARREN COUNTY, OHIO RECORDER'S RECORDS. (EASEMENTS BY RIVERS OFFSITE NOT PLOTTED, EASEMENTS BY OEDER TERMINATED MARCH 1, 2011 OR AT COMPLETION OF IMPROVEMENTS)

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLAN HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHOULD VERIFY LOCATIONS WITH THE UTILITY COMPANIES AND/OR THE OHIO UTILITIES PROTECTION SERVICE AT 1-800-362-2764 NOT LESS THAN 48 HOURS BEFORE STARTING ANY DEMOLITION OR



NOTES:

1) THE ADDRESS OF THE SUBJECT TRACT IS:

719 CORWIN NIXON BLVD. SOUTH LEBANON, OH 45065

2) SITE APPEARS ON FEMA MAP NO. 39113C0164E WITH AN EFFECTIVE DATE OF JANUARY 6, 2005 AND IS LOCATED IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).

3) SITE IS ZONED: PLANNED DEVELOPMENT DISTRICT, PD-109 UNDERLYING DISTRICT, MR-5, MATURE SINGLE-FAMILY). SEE ORDINANCE NO. 31534-16 TO AMEND THE AREA (EDGEWOOD SITE) AREA DEVELOPMENT REQUIREMENTS OF PLANNED DEVELOPMENT PD-109, PASSED BY THE COMMISSION AND SIGNED BY MAYOR, NOVEMBER 16, 2016. (SEE ZONING INFORMATION NOTE)

4) THERE ARE NO BUILDINGS ON THE SUBJECT TRACT.

5) THERE ARE CURRENTLY NO PARKING SPACES ON THE

6) THERE ARE NO OBSERVED PARTY WALLS ON THE SUBJECT

7) THERE IS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

8) THERE IS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK REPAIRS ON THE SUBJECT TRACT.

9) THERE IS NO OBSERVED EVIDENCE OF WETLAND DELINEATION MARKERS ON THE SUBJECT TRACT.

CERTIFICATION:

TO PRIMROSE SCHOOL FRANCHISING COMPANY, A GEORGIA CORPORATION AND STEWART TITLE GUARANTY COMPANY;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 8, 11, 13, 16, 17, 18, 19 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 27,

VANATTA ENGINEERING

JEFFREY A. VAN ATTA PROFESSIONAL OHIO REGISTERED SURVEYOR #7354



2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE 800-362-2764 OHIO UTILITIES PROTECTION SERVICE



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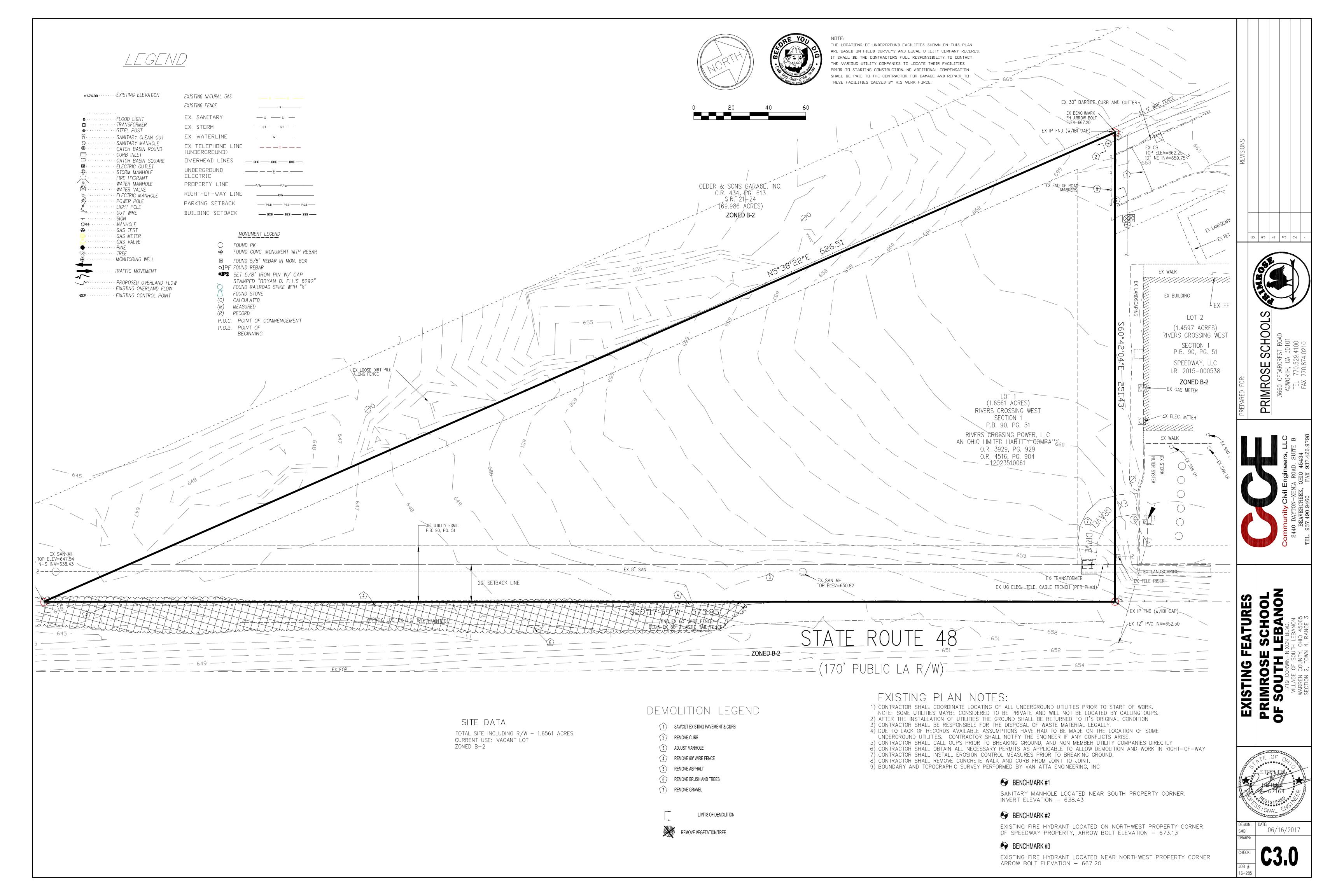
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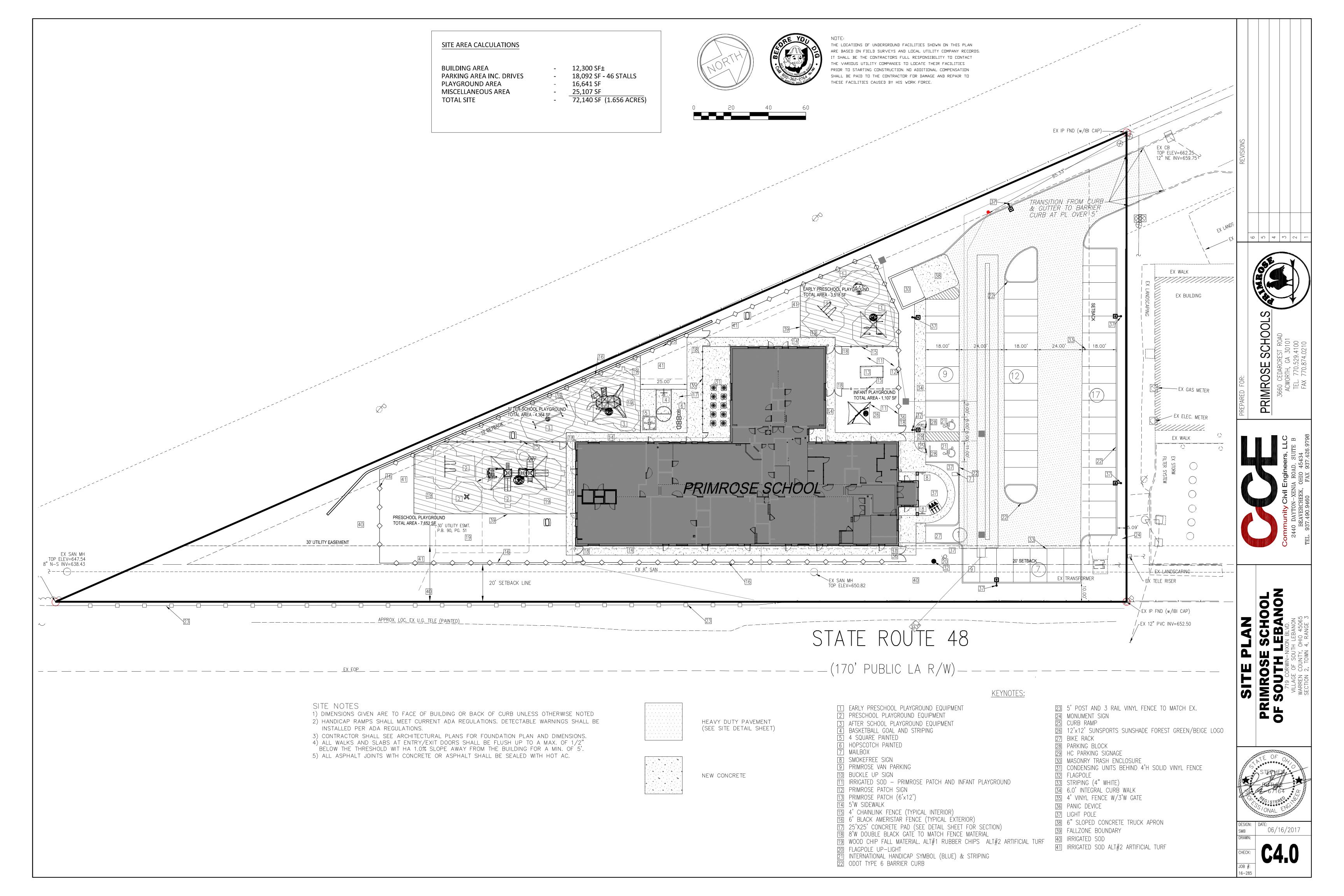
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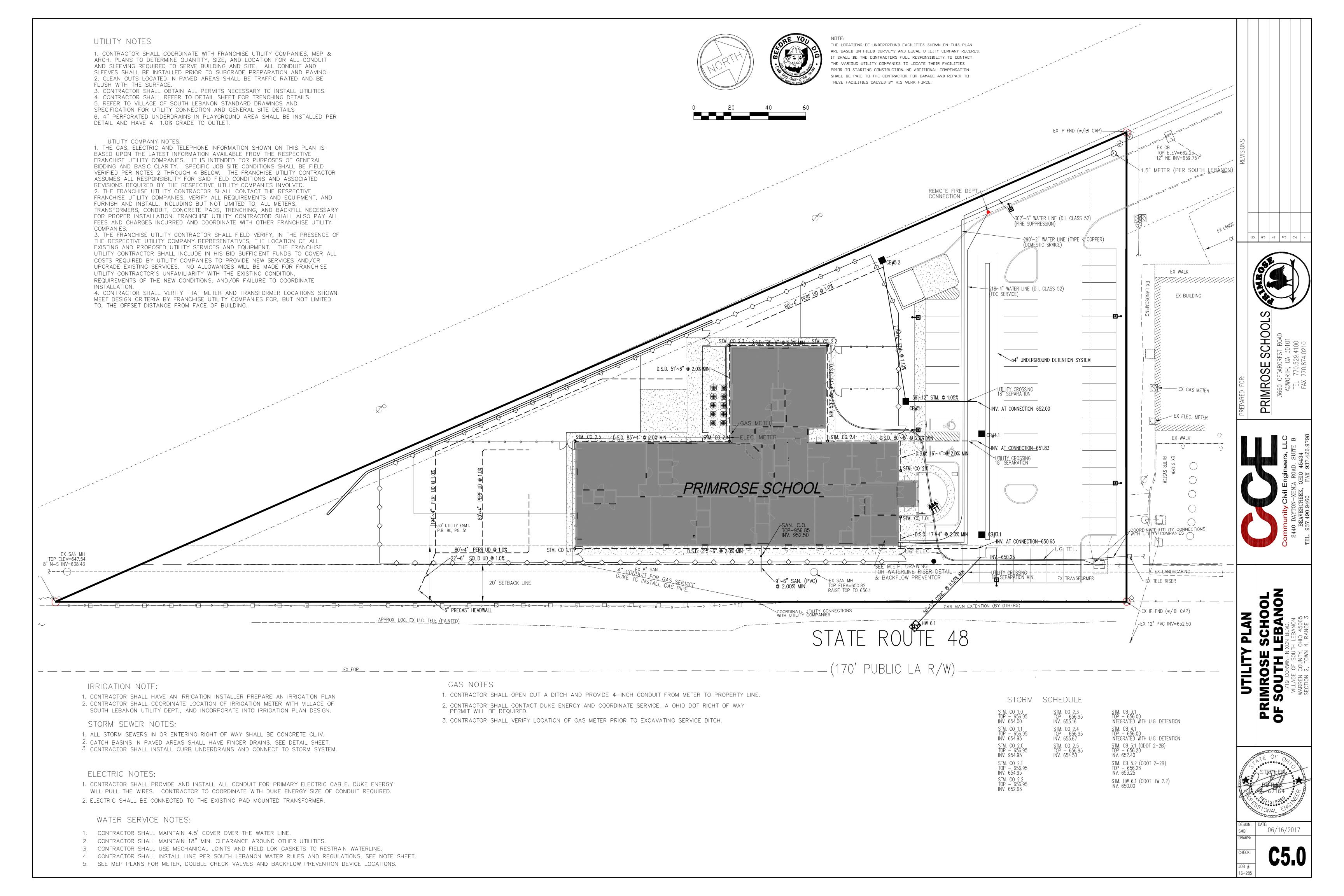
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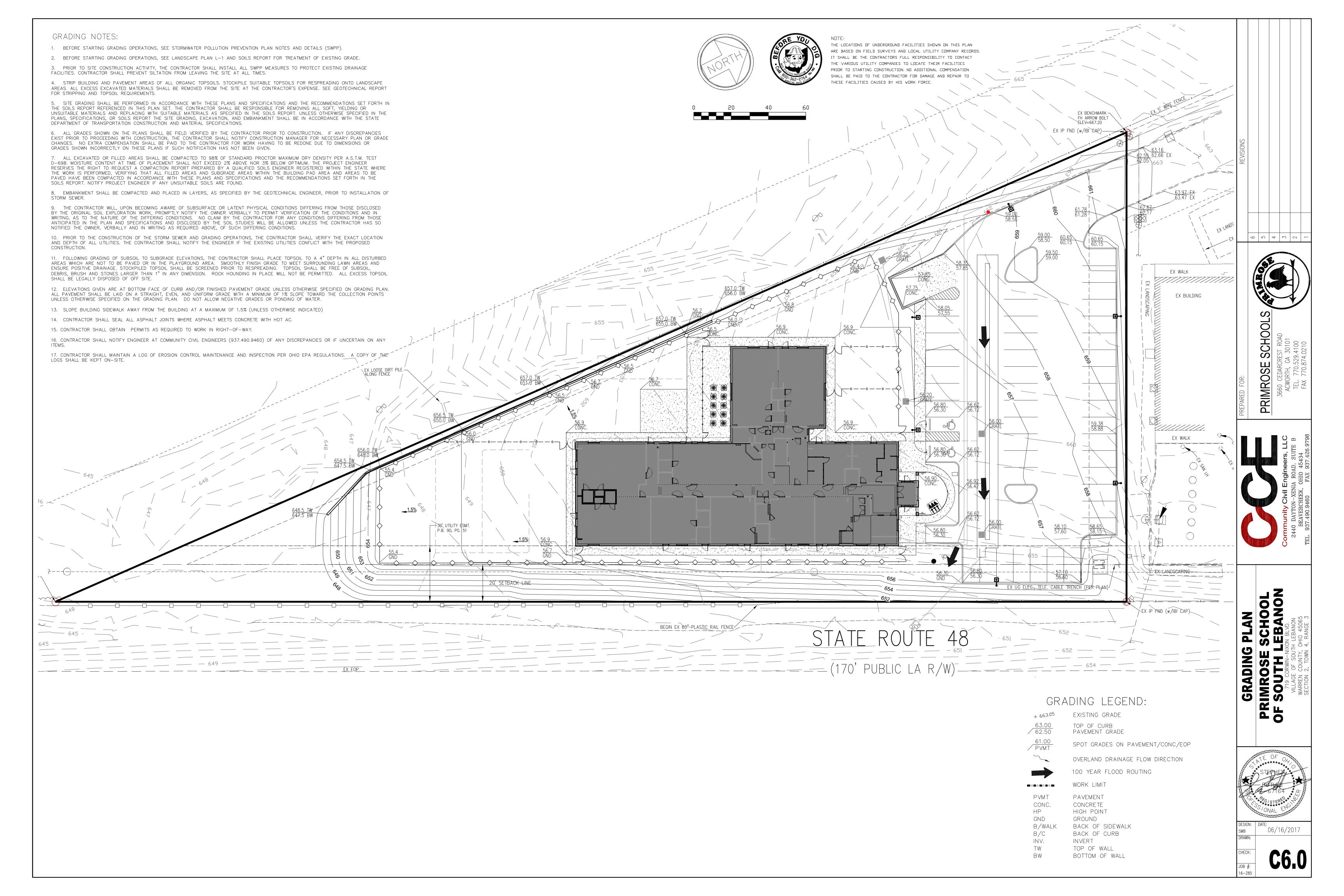
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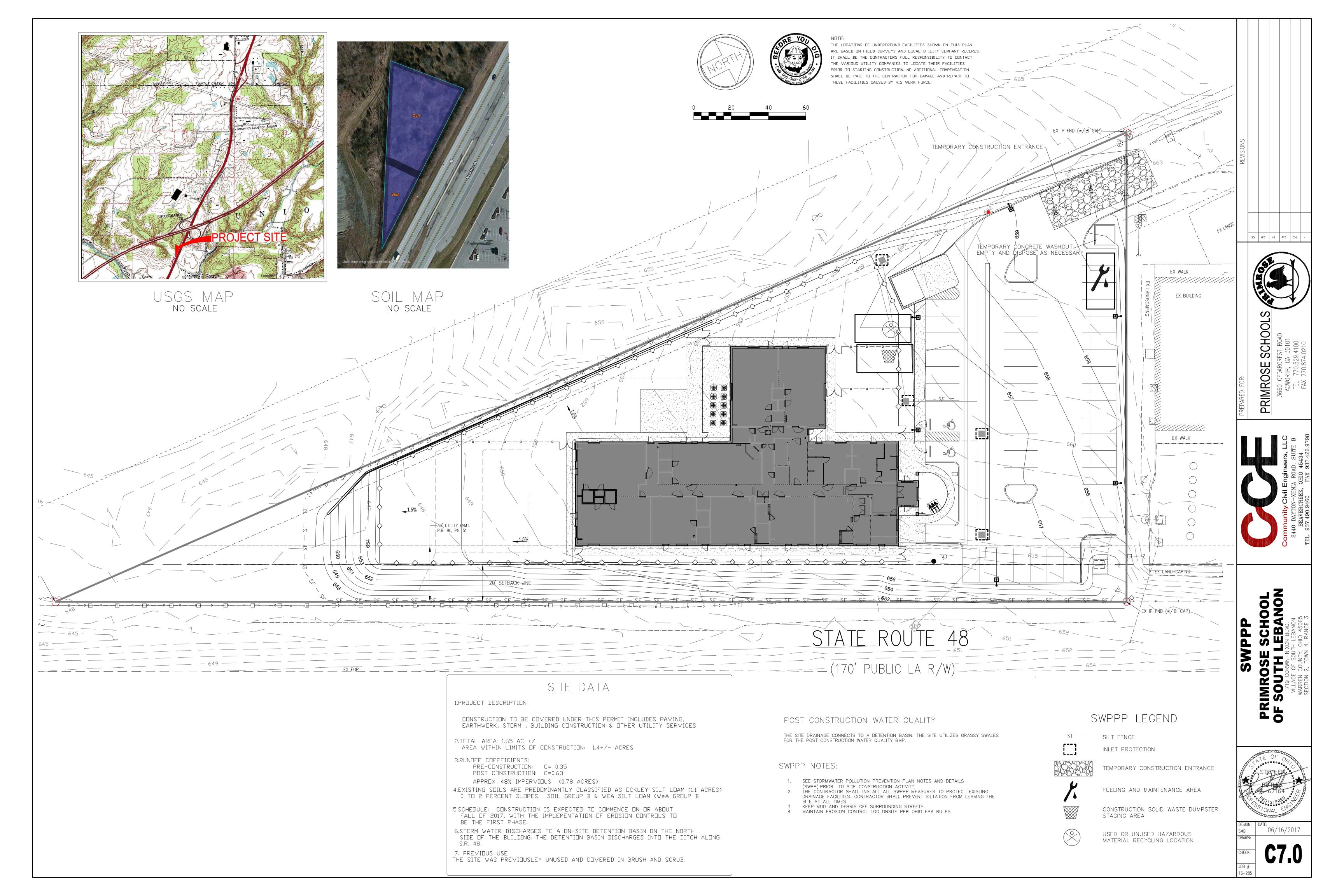
DATE: <u>MARCH</u>, 2017 SCALE: ____1"=30' ROJECT No. <u>5908</u>











A Timing of Sediment—Trapping Practices Sediment control practices shall be functional throughout earth-disturbing activity.

Settling facilities, perimeter controls, and other practices intended to trap sediment shall be implemented as the first step of grading and within seven (7) days from the start of earth disturbing activities. They shall continue to function until the upslope development area is restabilized.

B Stabilization of Denuded Areas. Denuded areas shall have soil stabilization applied within seven days if they are to remain dormant for more than fourteen (14) days. Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site, and shall also be applied within seven (7) days to denuded areas which may not be at final grade, but will remain dormant

C Settling Facilities. Concentrated stormwater runoff from denuded areas shall pass through a sediment—settling facility.

(undisturbed) for longer than forty—five (45) days.

The facility's storage capacity shall be sixty—seven (67) cubic yards per acre of drainage area.

D Sediment Barriers

Sheet flow runoff from denuded areas shall be filtered or diverted to a settling facility.

Sediment barriers such as sediment fence or diversions to settling facilities shall protect adjacent properties and water resources form sediment transported by sheet flow.

E Storm Sewer Inlet Protection. All storm sewer inlets which accept water runoff from the development area shall be protected so that sediment—laden water from soils that are not permanently stabilized will not enter the storm sewer system without first being filtered or otherwise treated to remove sediment, unless the storm sewer

F Working In or Crossing Streams.

system drains to a settling facility.

1 Streams including bed and banks shall be restabilized immediately after in-channel work is completed, interrupted, or INSPECTION SCHEDULE

To the extent practicable, construction vehicles shall be kept out of streams. Where in-channel work is necessary, precautions shall be taken to stabilize the work area during construction to minimize erosion.

2 If a live (wet) stream must be crossed by construction vehicles regularly during construction, a temporary stream crossing shall be provided.

G Construction Access Routes.

Measures shall be taken to prevent soil transport onto surfaces where runoff is not checked by sediment controls, or

H Sloughing and dumping.

1 No soil, rock, debris, or any other material shall be dumped or placed into a water resource or into such proximity that it may readily slough, slip, or erode into a water resource unless such dumping or placing is authorized by the approving agency, and, when applicable, the U.S. Army Corps of Engineers, for such purposes as, but not limited to, construction bridges, culverts, and erosion control structures.

2 Unstable soils prone to slipping or landsliding shall not be graded, excavated, filled or have roads imposed upon them unless the work is done in accordance with a qualified professional engineer's recommendations to correct, eliminate, or adequately address the problems.

I Cut and Fill Slopes.

Cut and fill slopes shall be designed and constructed in a manner which will minimize erosion. Consideration shall be given to the length and steepness of the slope, soil type, upslope drainage area, groundwater conditions, and slope stabilization.

J Stabilization of Outfalls and Channels. Outfalls and constructed or modified channels shall be designed and constructed to withstand the expected velocity of flow from a post-development, ten-year frequency storm or critical year storm whichever is greater without eroding.

K Establishment of permanent Vegetation. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized.

Permanent vegetation shall not be considered established until ground cover is achieved which, in the opinion of the approving agency, provides adequate cover and is mature enough to control soil erosion satisfactorily and to survive adverse weather conditions.

L Disposition of Temporary Practices. All temporary erosion and sediment control practices shall be disposed of within thirty (30) days after final site stabilization is achieved or after the temporary practices are no longer needed, unless otherwise authorized by the approving agency. Trapped sediment shall be permanently stabilized to prevent further erosion.

M Maintenance.

All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as needed to assure continued performance of their intended function. The person or entity responsible for the continued maintenance of permanent erosion controls shall be identified to the satisfaction of the approving agency.

SEEDING SCHEDULE

STABILIZATION PRACTICE: JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

A ______ o / / / | / / o _____ PERMANENT SEEDING -----DORMANT B----SEEDING TEMPORARY SEEDING -----SOD

A = KENTUCKY BLUEGRASS @ 90 LBS./ACRE MIXED WITH PERENNIAL RYEGRASS @ 30 LBS./ACRE PLUS 2 TONS OF STRAW MULCH/ACRE

B = KENTUCKY BLUEGRASS @ 135 LBS./ACRE MIXED WITH PERENNIAL RYEGRASS @ 45 LBS./ACRE PLUS 2 TONS/ACRE STRAW MULCH

C = SPRING OATS 100 LBS./ACRE

D = WHEAT OR RYE 150 LBS./ACRE

E = SOD

F = STRAW MULCH (2 TONS/ACRE)

o/ | /o | IRRIGATION NEEDED DURING JUNE AND JULY

O O IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

DIVERSION AND STRUCTURAL MEASURES - WILL BE INSPECTED AT SEVEN (7) DAY INTERVALS OR AFTER EVERY RAIN STORM PRODUCING RUNOFF.

<u>SEDIMENT AND PONDS</u> - WILL BE CHECKED AFTER EACH MAJOR PHASE OF THE DEVELOPMENT FOR SEDIMENT ACCUMULATION.

VEGETATIVE PLANTING - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN SEVEN (7) DAYS.

MOWING - DRAINAGEWAYS, DITCHES AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.

FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

SEDIMENT AND EROSION CONTROL FOR COMPLIANCE WITH OEPA'S INDIVIDUAL LOT PERMIT FOR CONSTRUCTION

PRESERVING EXISTING VEGETATION Whenever possible, preserve existing trees, shrubs

and other vegetation. To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation.

STRAW BALE OR SILT FENCE

Put up before any other work is done. Install on downslope side(s) of site with ends extended up sideslopes a short distance. Place parallel to the contour of the land to allow water to pond behind fence.

Entrench 6 inches deep (see back page). Stake (2 stakes per bale or 1 stake every 3 feet for silt fence). Leave no gaps between bales or sections of silt fence. Inspect and repair once a week and after every 1/2 inch rain. Remove sediment if deposits reach half the fence or straw bale height. Maintain until a lawn is established.

SOIL PILES

Located away from any downslope street, driveway, stream, lake wetland, ditch or drainageway. Temporary seed such as annual rye is recommended for topsoil piles.

Surround with straw bales or silt fence.

GRAVEL DRIVE

Install a single access drive using 3 to 5 inch aggregate over a geotextile material. Lay gravel 6 inches deep and 10 feet wide from the foundation to the street.

Use to prevent tracking dirt onto the road by all Maintain throughout construction until driveway is

Park all construction vehicles on the street and off of

SEDIMENT CLEANUP

By the end of each work day, sweep or scrape up soil tracked onto the road.

By the end of the next work day after a storm, clean up soil washed off-site, and check straw bales and silt fence for damage or sediment buildup.

DOWNSPOUT EXTENDERS Not required, but highly recommended. Install as soon as gutters and downspouts are

Route water to a grassed area. Maintain until a lawn is established.

REVEGETATION

Disturbed soils shall be stabilized as quick as practicable with temporary vegetation an/or mulching to protect exposed critical areas during development. Temporary mulch is to be applied at the rate of 2-3bales of straw per 1000 sq. ft.

SEEDING AND MULCHING

Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./ 1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer). Seed with an appropriate mix for the site (see table). Rake lightly to cover seed with 1/4" of soil. Roll

Mulch with straw (2-3 bales per 1000 sq. ft.) from March 15 to August 31. Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes and windy areas.

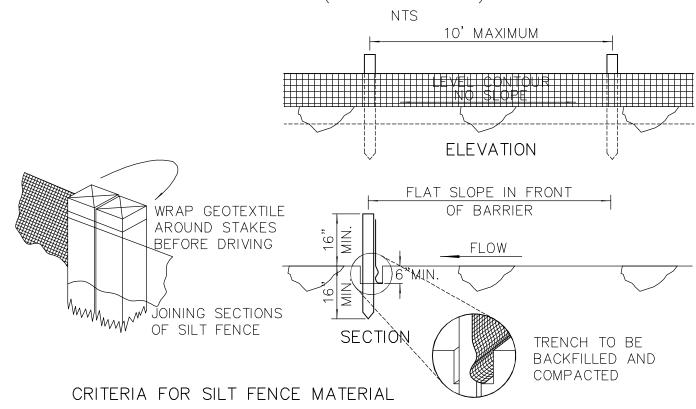
Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./ 1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer). Lightly water the soil.

Lay sod. Tamp or roll lightly. On slopes, lay sod starting at the bottom and work toward the top. Peg each piece down in several

Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container). Then water lightly every day or two for

If construction is completed after August 31, seeding or sodding may be delayed. Applying mulch or temporary seed (such as rye or winter wheat) is required from September 1 to March 15. Straw bales or silt fences must be maintained until final seeding is completed in spring March 15 - May 31.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)



1) FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2 BY 2-INCH HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FEET.

2) SILT FENCE SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR AS DESCRIBED BY THE CHART BELOW;

OH PHYS M

18" or Sufficient

-14' Minimum & Not

Less Than Width of

Ingress or Egress

PLAN VIEW

PROFILE

FOR HEAVY DUTY USE.

1. STONE SIZE SHALL BE ODOT #2 (1.5-2.5 INCH)

.120 LBS. MINIMUM TENSILE STRENGTH .. MAXIMUM ELONGATION AT 60 LBS. MINIMUM PUNCTURE STRENGTH. .50 LBS. MINIMUM TEAR STRENGTH. .40 LBS. MINIMUM BURST STRENGTH. ..200 PSI APPARENT OPENING SIZE. $. \le 0.84 \text{ MM}$ MINIMUM PERMITTIVITY1 X 10 SEC. ULTRAVIOLET EXPOSURE STRENGTH RETENTION....70%

70' (or 30' for Access to Individual House Lot)

-Right of WayDiversion —

Road or Other Existing

Paved Surface

as Needed

Culvert as Needed-

2. STONE LAYER SHALL BE 6" THINK FOR LIGHT DUTY OR AT LEAST 10 INCHES

4. REFER TO "RAINWATER AND LAND DEVELOPMENT MANUAL" 2006 EDITION FOR

ALL SPECIFICATIONS. VISIT "WWW.DNR.STATE.OH.US" FOR MANUAL

TEMPORARY CONSTRUCTION

ENTRANCE DETAIL

3. GEOTEXTILE FABRIC SHALL BE LAID OVER ENTIRE AREA PRIOR TO PLACING STONE.

FABRIC SHALL BE ROT PROOF AND HAVE A MINIMUM TENSILE STRENGTH OF 200LBS

1) SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE

2) ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

3) TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

4) WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

5) WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE

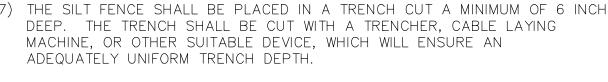
6) THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

7) THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE, WHICH WILL ENSURE AN

8) THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

9) SEAMS BETWEEN SECTION OF SILT SHALL BE OVERLAPPED WITH THE END GROUND.

10) MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER



STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE

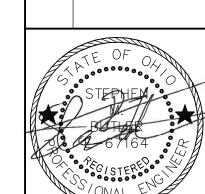
PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE PRACTICES SHALL BE INSTALLED.

SCHOOLS PRIMROSE

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THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE. MAINTENANCE: AFTER SILT HAS DRIED, REMOVE IT FROM THE SURFACE OF DANDY BAG WITH BROOM.

> DANDY BAG NTS

SECTION A-A

INSTALLATION: STAND GRATE ON END. PLACE DANDY BAG

OVER GRATE. FLIP GRATE OVER SO THAT OPEN END IS UP.

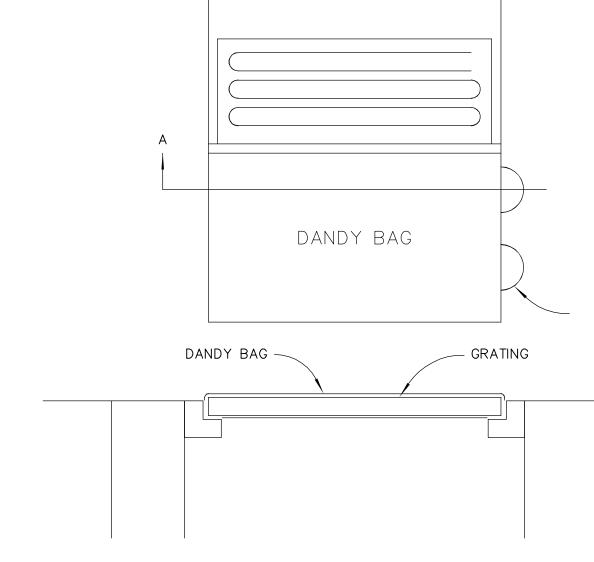
COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT

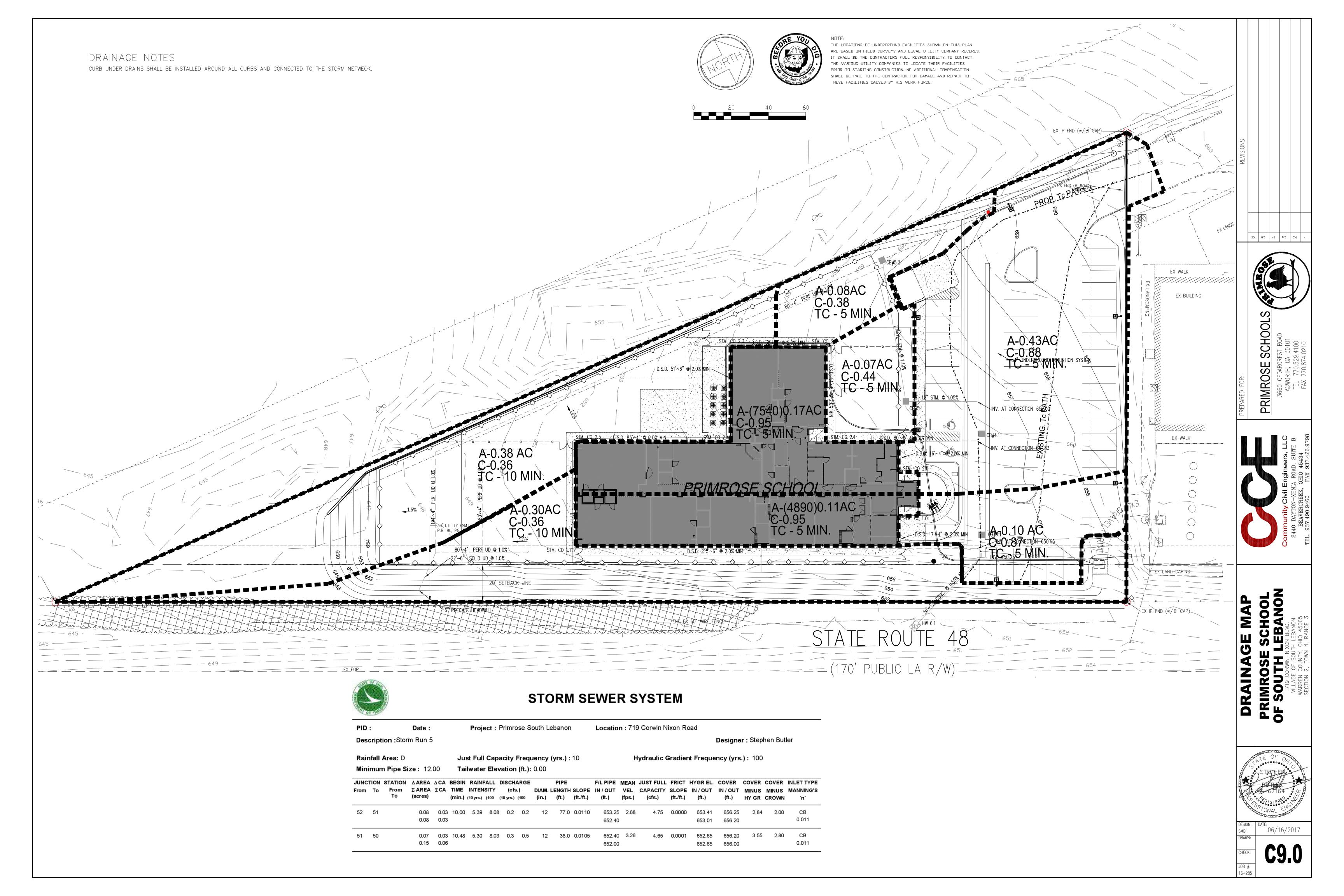
BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME SO

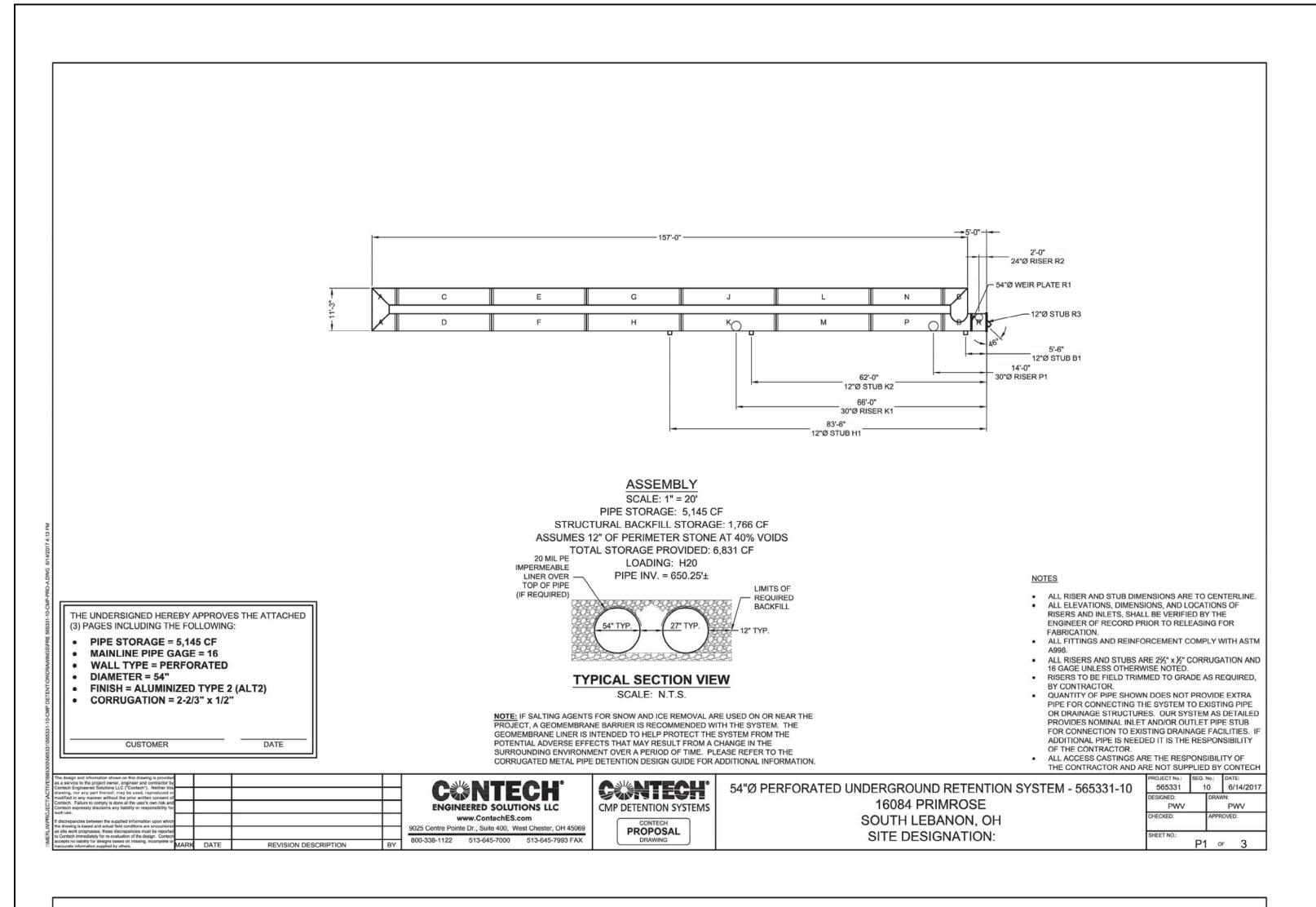
PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS

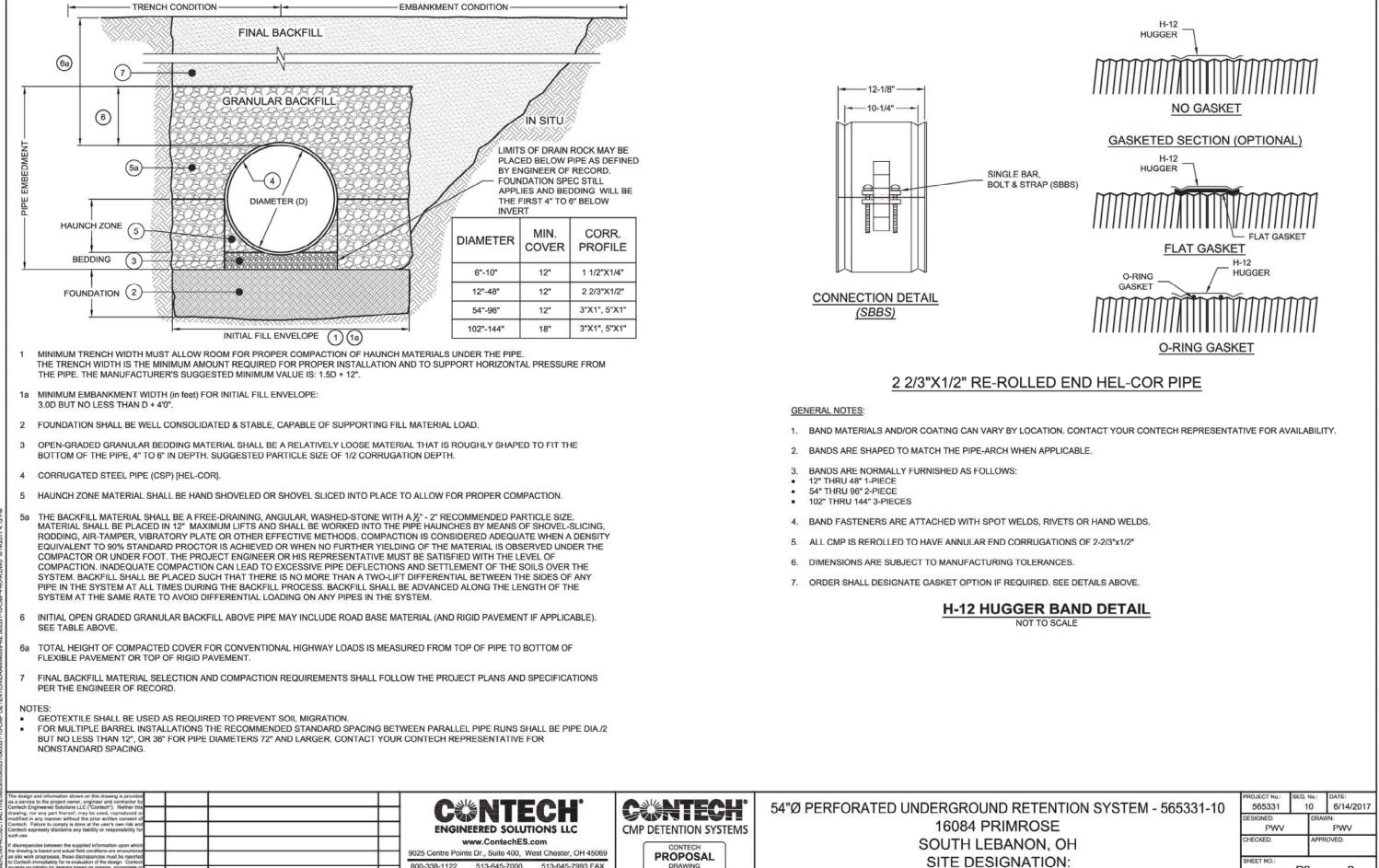
FIT PROPERLY. HOLDING HANDLES, CAREFULLY PLACE DANDY

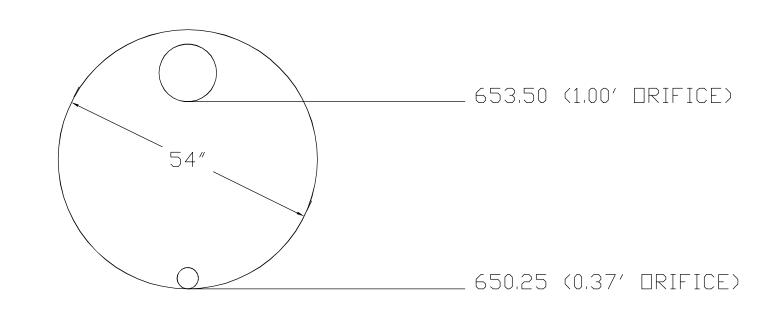
03/18/2016



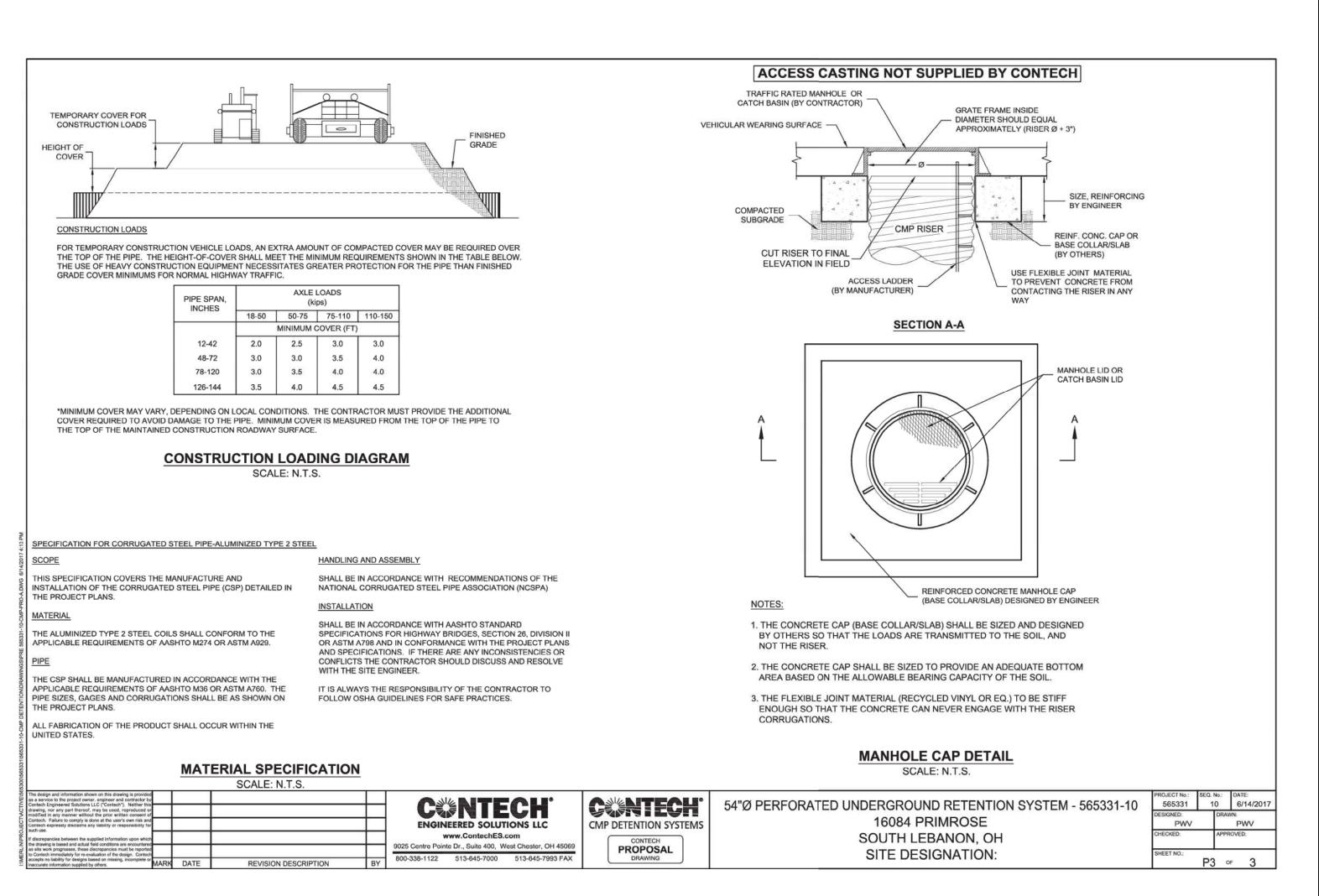


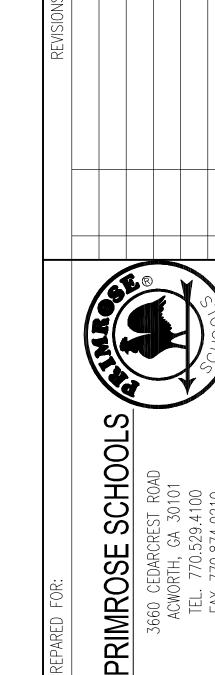






UNDERGROUND BULKHEAD OUTLET CONTROL





TENTIO <u></u> D N N

NDERGROUND PRIMR() F SQU

- 1. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4'-6".
- 1.A. ALL WATER SERVICE LATERALS SHALL HAVE A MINIMUM COVER OF 42".
- 2. ALL WATER MAINS SHALL BE DUCTILE IRON CONFORMING WITH AWWA SPEC. C-151 CLASS 52 IN SIZES 4"-16" AND PSI CLASS 350 FOR 20" AND ABOVE.
- COMPACT FITTINGS ARE PERMITTED.
- 4. ALL WATER VALVES MUST OPEN LEFT. ALL VALVE BOX LIDS MUST BE CAST/STAMPED "WCWD" IN 1 1/2" LETTERS AND BE NEENAH NF-19130002 OR EQUAL. ALL VALVE EXTENSIONS TO HAVE SET SCREWS.
- 5. A CONCRETE SLAB MUST BE PROVIDED AT FINAL GRADE AROUND ALL MAIN VALVE BOXES. THE SLABS MUST BE EIGHTEEN INCHES (18") SQUARE /CIRCLE AND NINE INCHES (9") THICK.
- 6. WATER AND SEWER LINES SHALL HAVE A MINIMUM OF TEN FEET (10') HORIZONTAL SEPARATION AND/ OR TWO FEET (2') VERTICAL SEPARATION.
- 7. NO GATE VALVE, METER PIT, BLOW OFF OR CORPORATION STOP SHALL BE LOCATED UNDER OR WITHIN THREE FEET (3') OF DRIVEWAYS, ROADWAYS OR SIDEWALKS.
- 8. NO DRIVEWAY SHALL BE INSTALLED WITHIN FIVE FEET (5') OF A FIRE HYDRANT.
- 9. A MINIMUM OF THREE FEET (3') IS REQUIRED BETWEEN CORPORATION STOPS. NO TAP SHALL BE MADE WITHIN THREE (3') OF A BELL.
- 10. THE LOCATION OF WATER SERVICE LATERALS MUST BE STAMPED IN THE CURB AT THE TIME THE CURB IS PLACED TO PERMANENTLY INDICATE THE LOCATION OF SAID LATERALS.
- 11. THE LOCATION OF ALL WATER SERVICE LATERALS MUST BE PROVIDED ON THE AS-BUILT PLANS.
- 12. CONTRACTOR SHALL SUBMIT AS-BUILT PLANS OF SANITARY AND WATER LATERALS TO THE OWNER.
- 13. ALL WATER MAINS CROSSING UNDER STORM DRAINS SHALL BE BACK-FILLED WITH GRANULAR MATERIAL, O.D.O.T. ITEM 310.02, BETWEEN MAINS AND DRAINS.

APPROVED/REVISED

JUNE, 2012

WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER

WG-1

STANDARD NUMBER

14. EACH SERVICE LATERAL MUST BE A CONTINUOUS PIECE OF PIPE FROM THE CORP STOP TO THE METER. COUPLINGS SHALL NOT BE ALLOWED. TYPE K COPPER SHALL BE USED FOR 3/4" AND 1" SERVICES. POLYETHYLENE 200 PSI (COPPER TUBE SIZE) MAY BE USED FOR 1 1/2" AND 2" SERVICES. TRACER WIRE MUST BE USED WITH POLY AND SDR 21.

15. SERVICE LINES 1" AND LARGER MUST BE EITHER TYPE K COPPER, POLY 200 PSI (ASTM D-2737) OR SDR 21 (SLIP JOINT) (ASTM-2241), TRACER WIRE MUST BE TAPED EVENLY EVERY 3' ON POLY AND SDR 21 FROM THE METER PIT INTO THE STRUCTURE BEING SERVED (A 3' LEAD IS REQUIRED INSIDE THE PIT).

- 16. 1 1/2" AND 2" SERVICE LINES FROM THE CORP STOP TO THE METER PIT MUST BE TYPE K COPPER OR POLYETHYLENE 200 PSI. POLY MUST HAVE A TRACER WIRE. SEE W-10A.
- 17. FIRE HYDRANTS MUST BE PROVIDED AT THE ENTRANCE TO ALL SUBDIVISIONS AND AT ALL STREET INTERSECTIONS.
- 18. YARD HYDRANT-MURDOCK BFHE-10 3/4", WITH BFH FEATURES AND VACUUM BREAKER PERMANENTLY ATTACHED TO OUTLET, WITH DOUBLE BALL CHECK VALVE ON DRAIN.
- 19. A BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON ALL WATER SERVICE LATERALS BY THE PROPERTY OWNER IMMEDIATELY UPON ENTRY TO THE STRUCTURE TO BE SERVED, PRIOR TO ANY POINT OF CONNECTION OR USAGE. THE FOLLOWING DEVICES SHALL BE REQUIRED:
- i) FOR RESIDENTIAL DWELLING UNITS (3 FAMILY OR LESS), A DOUBLE CHECK VALVE COMPLYING WITH A.S.S.E. NO. 1024 MUST BE PROVIDED (WATTS REGULATOR COMPANY MODEL NO. 7 OR EQUAL).
- ii) FOR ALL OTHER USERS, A REDUCED PRESSURE PRINCIPAL PRESSURE REDUCING VALVE (TRIPLE CHECK VALVE) COMPLYING WITH A.S.S.E. NO. 1013 MUST BE PROVIDED (WATTS REGULATOR COMPANY MODEL NO. 909 OR EQUAL).
- 20. SWAB PIPE WITH 50 PPM CHLORINE SOLUTION BEFORE INSTALLATION.
- 21. ALL NEW WATER MAINS SHALL BE PRESSURE TESTED FOR 2 HOURS AT 1.5 TIMES THE OPERATING PRESSURE OR AT 150 PSI, WHICHEVER IS GREATER. ALLOWABLE LEAKAGE SHALL BE PER TABLE 6A OF AWWA C-600.
- 22. DEDUCT METERS SHALL NOT BE ALLOWED.
- 23. NO IRRIGATION CONNECTIONS SHALL BE ALLOWED IN THE METER PIT.
- 24. BACK FLOW PREVENTER TO BE INSTALLED AHEAD OF ANY SPRINKLER BUT NOT IN METER PIT.
- 25. ALL MATERIALS USED SHALL BE DOMESTIC, MADE IN THE UNITED STATES OF AMERICA

APPROVED/REVISED MARCH, 2008

WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER

STANDARD NUMBER

PROCEDURE FOR CONNECTION TO EXISTING WATER SYSTEM

1. MUST NOTIFY WARREN COUNTY WATER DEPARTMENT THREE (3) DAYS IN ADVANCE OF ANY SHUT DOWN. WARREN COUNTY WILL ISSUE THE SHUT DOWN NOTIFICATION AND/OR BOIL ADVISORY TO AFFECTED CUSTOMERS PER OHIO EPA REQUIREMENTS IF DETERMINED NECESSARY BY WARREN COUNTY.

- 2. EXPOSE EXISTING MAIN AT PROPOSED CONNECTION POINT. NO WET TAP SHALL BE MADE WITHIN THREE (3) FEET OF A BELL OR PIPE CONNECTION.
- 3. COUNTY PERSONNEL TO OPERATE CLOSING OF APPROPRIATE VALVES TO ISOLATE LINE TO BE TAPPED.
- 4. INSTALL PROPER TAPPING SLEEVE AND TAPPING VALVE. THE TAPPING SLEEVE AND VALVE SHALL BE TESTED AT 200 PSI FOR A PERIOD OF AT LEAST 5 MINUTES. THE PIPE SLUG MUST BE REMOVED AND INSPECTED BY COUNTY PERSONNEL.
- 5. IF THE TAPPING SLEEVE AND VALVE WILL BE UNDER FUTURE PAVEMENT, THE BURIED VALVE MUST BE LEFT OPEN AND A NEW VALVE SET OUT OF PAVEMENT.
- 6. FIELD CUT EXISTING MAIN AS NECESSARY TO ACCOMMODATE TEE AND CLOSE COUPLED VALVES AT EACH END OF TEE. CARE IS TO BE TAKEN SO AS NOT TO GET DIRT IN EXISTING MAIN.
- 7. THOROUGHLY CLEAN AND DISINFECT PIPE AND APPURTENANCES TO BE INSTALLED.
- 8. INSTALL TEE AND VALVES DRESSER COUPLINGS CAN BE USED IF NECESSARY. PROPOSED MAIN VALVE IS TO BE CAPPED AND SHUT OFF. EXISTING MAIN IS THEN TO BE RETURNED TO SERVICE BY COUNTY PERSONNEL.
- 9. CONSTRUCTION OF PROPOSED MAIN IS TO BE COMPLETED WITHIN A JOINT OF CONNECTION TO TEE AND VALVES INSTALLED ABOVE.
- 10. ENTIRE LINE IS TO BE PRESSURE TESTED AND DISINFECTED TO COUNTY STANDARDS.
- 11. ENTIRE LENGTH OF PIPE IS TO BE THOROUGHLY CLEANED AND DISINFECTED PRIOR TO INSTALLATION. PERMATEX CHLORINE TABLETS TO BE USED FOR DISINFECTION. DOSAGE SHALL BE PER MANUFACTURER'S SPECIFICATIONS BASED ON PIPE MATERIAL.
- 12, NEW MAIN IS TO BE PUT INTO SERVICE BY COUNTY PERSONNEL.
- 13. TAPPING SLEEVES/SADDLES TO BE TWO-PIECE CAST IRON. SIZE ON SIZE TAPPING SLEEVES ARE NOT PERMITTED.

APPROVED/REVISED

JUNE, 2012

WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER

STANDARD NUMBER

WG-2

DETAILED PROCEDURES FOR SANITARY SEWER

- 1. PROCEDURE FOR MAKING SEWER LATERAL CONNECTIONS TO EXISTING SEWER:
- A. IF ABS COMPOSITE EXCAVATE TO POINT OF LATERAL ON MAIN; CLEAN EXISTING PIPE; ALIGN SADDLE TO PROPER POSITION AND MARK AREA TO BE CUT: CUT HOLE IN PIPE AS REQUIRED MAKING SURE THE CUT OUT DOESN'T ENTER THE MAIN; ATTACH AND SEAL SADDLE WITH STAINLESS STEEL STRAPS AND MASTIC SEALER BETWEEN SADDLE AND PIPE. INSERTA TEES ARE NOT PERMITTED.
- B. IF CLAY OR CONCRETE EXCAVATE TO POINT OF LATERAL ON MAIN: PLUG OUTLET PIPE AT UPSTREAM MANHOLE - PUMP TO DOWNSTREAM MANHOLE IF NECESSARY; REMOVE CLOSEST LENGTH OF PIPE AND REPLACE WITH TEE LATERAL SECTION OF PIPE OR CORE EXISTING PIPE IN PLACE.
- 2. PROCEDURE FOR MAKING SEWER EXTENSIONS FROM EXISTING MANHOLES: CONSTRUCT LINE TO WITHIN ONE JOINT OF EXISTING MANHOLE: AFTER LINE PASSES LEAKAGE TEST AND WARREN COUNTY SANITARY ENGINEER GIVES GO AHEAD - CONNECTION IS TO BE MADE: PLUG OUTLET PIPE AT UPSTREAM MANHOLE - PUMP TO DOWNSTREAM MANHOLE IF NECESSARY; A HOLE IS CUT AT THE PROPOSED INLET POINT AND THE LAST JOINT IS LAID; EXISTING BENCH AND CHANNEL OF MANHOLE IS REBUILT AND SHAPED AS REQUIRED; NEW CONNECTION IS TO BE SEALED AS REQUIRED.
- 3. PROCEDURE FOR MAKING NEW MANHOLES ON EXISTING SEWER MAINS: EXCAVATE AND EXPOSE EXISTING SEWER AT POINT OF NEW MANHOLE; BUILD MANHOLE OVER EXISTING LINE WHILE NOT DISTURBING EXISTING LINE; BUILD NEW LINE(S) FROM NEW MANHOLE: AFTER NEW LINE(S) PASS(ES) LEAKAGE TEST AND WARREN COUNTY SANITARY ENGINEER GIVES GO AHEAD - PLUG OUTLET PIPE AT EXISTING UPSTREAM MANHOLE (PUMP TO EXISTING DOWNSTREAM MANHOLE IF NECESSARY): BREAKOUT TOP OF EXISTING SEWER AS REQUIRED AND FORM A BENCH AND CHANNEL AS REQUIRED.
- 4. STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES. PUMPS ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- 5. ALL SANITARY SEWER PIPE MUST BE BEDDED WITH NUMBER 57 STONE EXTENDING FROM A POINT NOT LESS THAN 6" BELOW THE BOTTOM OF THE PIPE TO THE SPRINGLINE OF THE PIPE. BACKFILL WITH NUMBER 9 GRITS FROM THE SPRINGLINE TO A POINT NOT LESS THAN 12" ABOVE THE CROWN OF THE PIPE. BEDDING SHALL PROVIDE A UNIFORM SUPPORT ALONG THE ENTIRE PIPE BARREL, WITHOUT LOAD CONCENTRATION AT JOINT COLLARS OR BELLS. BEDDING DISTURBED BY PIPE MOVEMENT OR BY REMOVAL OF SHORING OR MOVEMENT OF THE TRENCH SHIELD OR BOX SHALL BE RECONSOLIDATED PRIOR TO BACKFILL.

APPROVED/REVISED

JUNE, 2012

WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER

SG-

STANDARD NUMBER

SEWER

- 1. ALL SANITARY PIPE SHALL CONFORM TO ASTM D-2680 FOR ABS/PVC GASKETED COMPOSITE PIPE (TRUSS), ASTM D-3034 FOR SDR 26 GASKETED 4" - 15" DIAMETER OR ASTM F-679 FOR SDR 26 GASKETED 18" - 30" DIAMETER. PIPE LARGER THAN 15" SHALL CONFORM TO ASTM F-949 (A2000) OR ASTM F-1803. CERAMIC COATED CLASS 53 DUCTILE IRON PIPE OR EQUAL MUST BE USED WHERE SPECIFIED BY THE COUNTY SANITARY ENGINEER. JOINTS FOR PVC GRAVITY SEWER PIPE SHALL BE PUSH-ON TYPES WITH RUBBER GASKETS. PIPE ENDS SHALL NOT BE BEVELED. PIPE ENDS MUST BE SEALED.
- 2. ROOF DRAINS, FOUNDATION DRAINS AND OTHER STORM WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.
- 3. NO MANHOLE, OR ANY PORTION OF THE MANHOLE, SHALL BE LOCATED UNDER A SIDEWALK OR DRIVEWAY.
- 4. SANITARY SEWER LATERALS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS: A) ABS PIPE - ASTM D-2751 WITH SDR 23.5 (4" OR 6" GLUE JOINT) B) PVC PIPE - ASTM D-3034 WITH SDR 23.5 (4" OR 6" GLUE OR GASKET JOINT)
 - ASTM D-2665 SCHEDULE 40 (4" ONLY) ASTM D-3034 WITH SDR 35 (6" ONLY)
- c) DUCTILE IRON CLASS 53 (4" OR 6")
- 5. ON THE WATER MAIN SIDE OF THE ROAD, SEWER LATERALS MUST BE EXTENDED TWENTY-THREE FEET (23') BEHIND CURB, ON THE SIDE OF THE ROAD OPPOSITE THE WATER MAIN. SEWER LATERALS MUST BE EXTENDED TO THE HOUSE SIDE OF UTILITY EASEMENTS AND SHALL BE MARKED BY TWO INCHES (2") BY FOUR INCHES (2" X 4") OR LARGER POSTS. POSTS SHALL BE PAINTED RED. A SIX FOOT (6') LENGTH OF #6 REINFORCED BAR SHALL BE INSTALLED AGAINST THE POST. END OF SEWER LATERAL SHALL NOT EXCEED 12' IN DEPTH UNLESS APPROVED BY THE COUNTY SANITARY ENGINEER.
- 6. ONLY SANITARY WYES OR TEES WITH 45' BENDS SHALL BE USED FOR SANITARY LATERAL INSTALLATION. ALL WYES TO BE GLUE JOINTS ON TRUSS AND COMPOSITE PIPE. ALL SANITARY LATERALS MUST BE SIX INCHES (6") IN DIAMETER WITHIN THE RIGHT-OF-WAY AND MAY BE REDUCED TO FOUR INCHES (4") FROM THE RIGHT-OF-WAY TO THE STRUCTURE. NO CONNECTION SHALL BE MADE TO THE CROWN OF THE SEWER MAIN.
- 7. FOR ALL STRUCTURES OTHER THAN DETACHED SINGLE FAMILY RESIDENTIAL UNITS, SEWER LATERALS MUST BE NOT LESS THAN SIX INCHES (6") INTERNAL DIAMETER. FOR DETACHED SINGLE-FAMILY RESIDENTIAL UNITS, SEWER LATERALS MUST BE SIX INCHES (6") IN DIAMETER WITHIN THE RIGHT-OF-WAY AND MAY BE REDUCED TO FOUR INCHES (4") FROM THE RIGHT-OF-WAY TO THE STRUCTURE.
- 8. THE LOCATION OF SEWER LATERALS MUST BE STAMPED IN THE CURB AT THE TIME THE CURB IS PLACED TO PERMANENTLY INDICATE THE LOCATION OF SAID LATERALS.

WARREN COUNTY STANDARD DETAILS APPROVED/REVISED DEPARTMENT OF WATER & SEWER JUNE, 2012

STANDARD NUMBER

SEWER (CONTINUED)

- 9. THE LOCATION OF ALL SEWER LATERALS MUST BE PROVIDED ON THE AS-BUILT
- 10. MANHOLE LATERALS SHALL HAVE AN INVERT TWO INCHES (2") ABOVE MAIN-LINE INVERT.
- 11. EXISTING MANHOLE CASTINGS ARE TO BE RAISED BY EITHER A MANHOLE ADJUSTING RING OR A BARREL SECTION ADDED. IF THE HEIGHT OF NECESSARY ADJUSTMENT IS OVER ONE FOOT (1') OR THERE IS ALREADY AN EXISTING ADJUSTMENT RING BEING USED, THE CONTRACTOR IS TO USE A NEW BARREL SECTION ONLY. EXTRA CARE IS TO BE TAKEN TO INSURE A PROPER AND TIGHT SEAL AT ALL NEW JOINTS.
- 12. THE CONTRACTOR MUST EITHER CONSTRUCT BULK HEAD(S) OR INSTALL MECHANICAL PLUGS(S) AT THE POINT(S) OF CONNECTION TO THE EXISTING SEWER PRIOR TO INITIATING ANY CONSTRUCTION. THE BULK HEAD(S) OR MECHANICAL PLUG(S) SHALL REMAIN IN PLACE UNTIL THE NEW MAINS HAVE BEEN FLUSHED, CLEANED, TESTED, TELEVISED AND APPROVED FOR USE BY WARREN COUNTY. THE BULK HEAD(S) OR MECHANICAL PLUG(S) CAN ONLY BE REMOVED IN THE PRESENCE OF A WARREN COUNTY SEWER INSPECTOR.
- 13. TRENCH SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST INSURE THAT ALL APPLICABLE OSHA OPEN TRENCH SAFETY REQUIREMENTS ARE FOLLOWED. IT IS NOT WARREN COUNTY'S RESPONSIBILITY TO INSPECT EACH SITE FOR COMPLIANCE.
- 14. HDPE PIPE MAY BE USED FOR DIRECTIONAL BORING OF FORCE MAINS WITH APPROVAL FROM THE COUNTY SANITARY ENCINEER. ALL DIRECTIONAL DRILLING SHOULD BE ACCOMAPNIED BY DRILLING LOGS AT 25' STATION INCREMENTS, PVC PIPE SHALL BE PERMITTED FOR FORCE MAINS SIX INCHES (6") OR SMALLER IN DIAMETER. FORCE MAINS EIGHT INCHES (8") OR LARGER MUST BE CLASS 53 DUCTILE IRON WITH AN INTERIOR LINING OF EPOXY OR CERAMIC. PVC SHALL CONFORM TO AWWA C900 REQUIREMENTS AND HAVE AN EQUIVALENT OUTSIDE DIAMETER OF DR 14.
- 15. MINIMUM SLOPE SHALL BE AS FOLLOWS:

MINIMUM SLOPE (%) PIPE SIZE .50 .35 .28 .19

16. ALL MATERIALS USED SHALL BE DOMESTIC, MADE IN THE UNITED STATES OF AMERICA.

WARREN COUNTY STANDARD DETAILS APPROVED/REVISED DEPARTMENT OF WATER & SEWER JUNE, 2012

STANDARD NUMBER

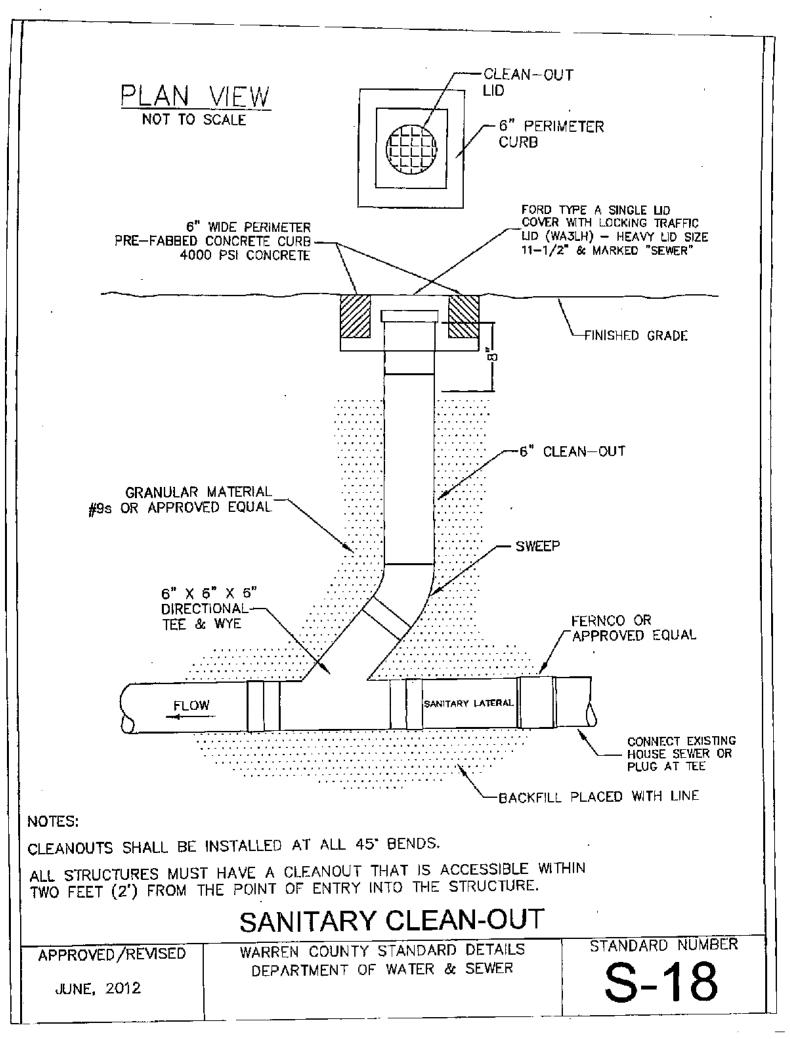
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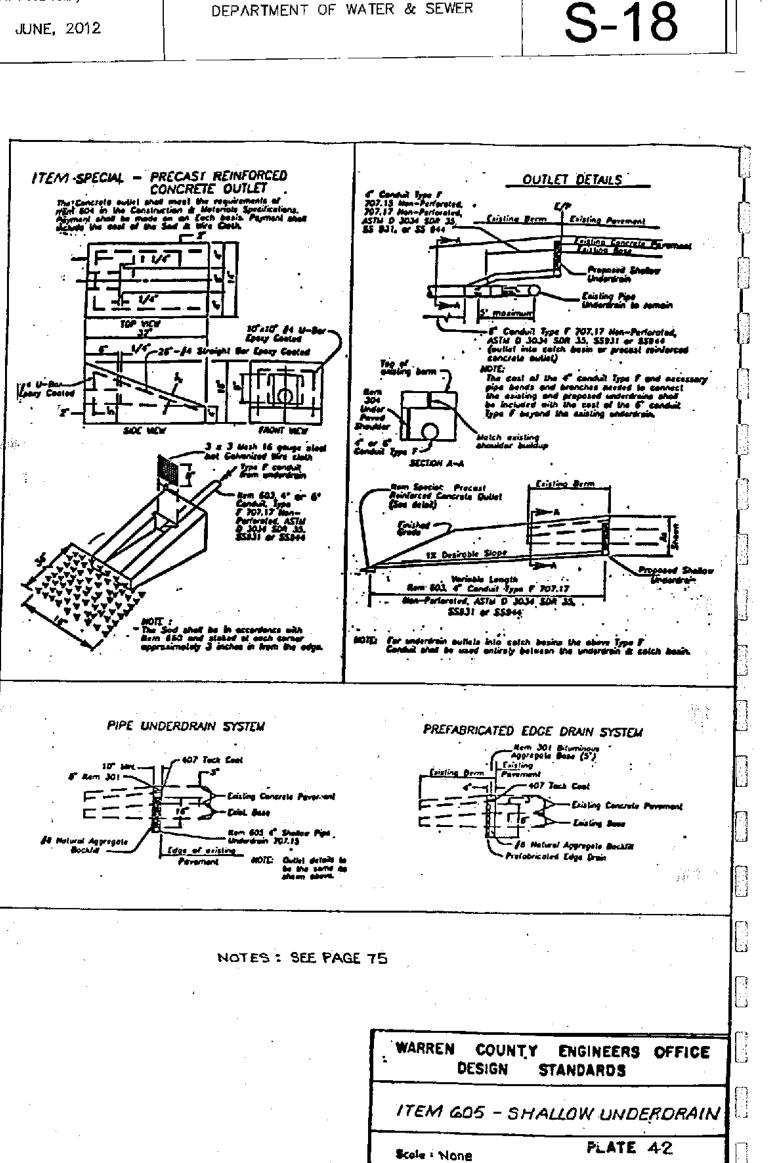
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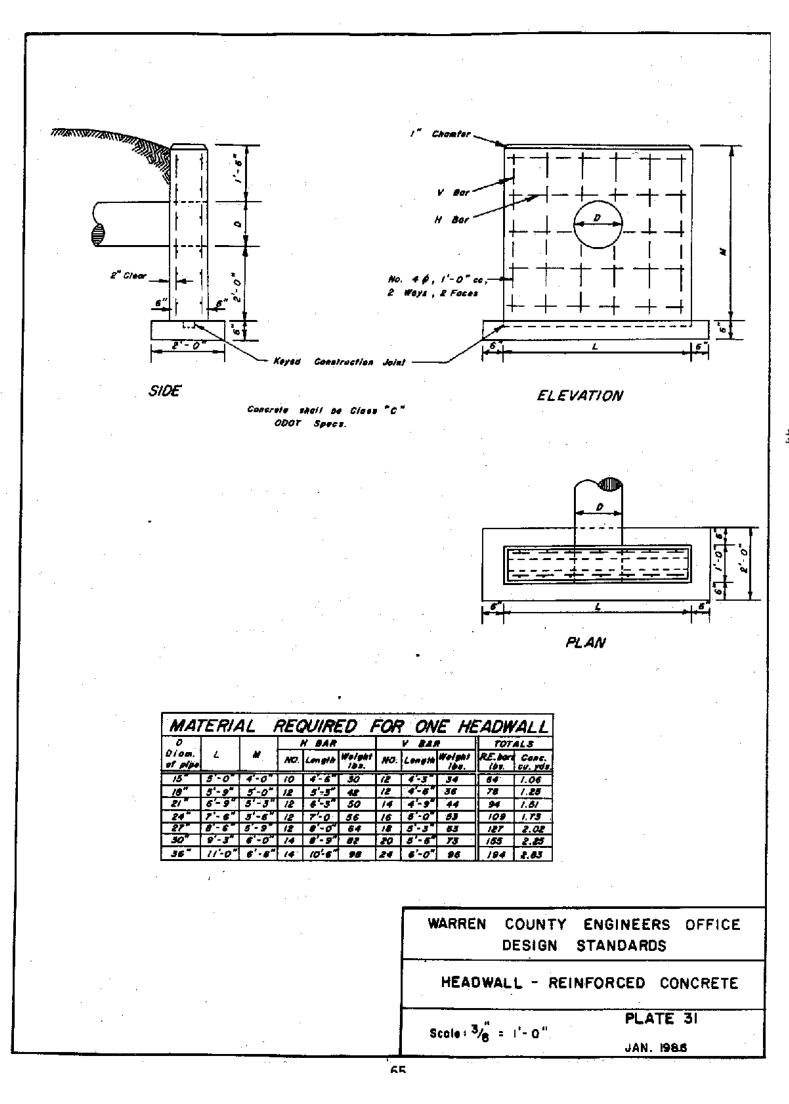
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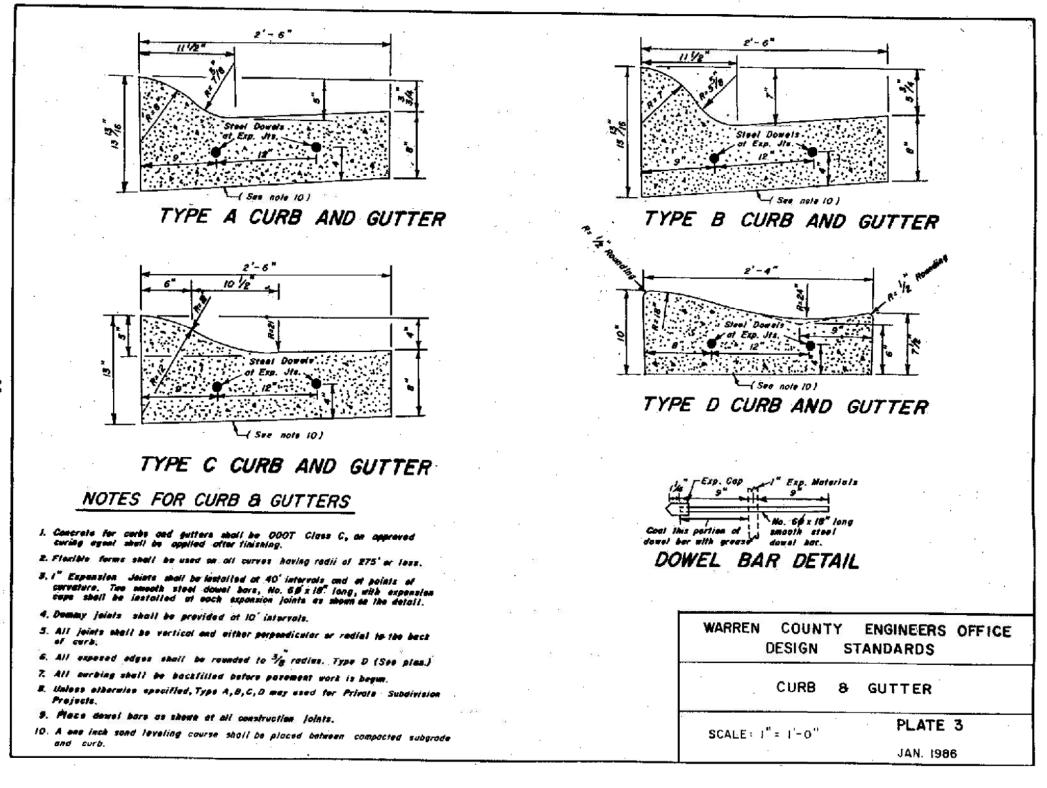




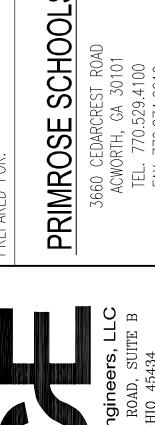
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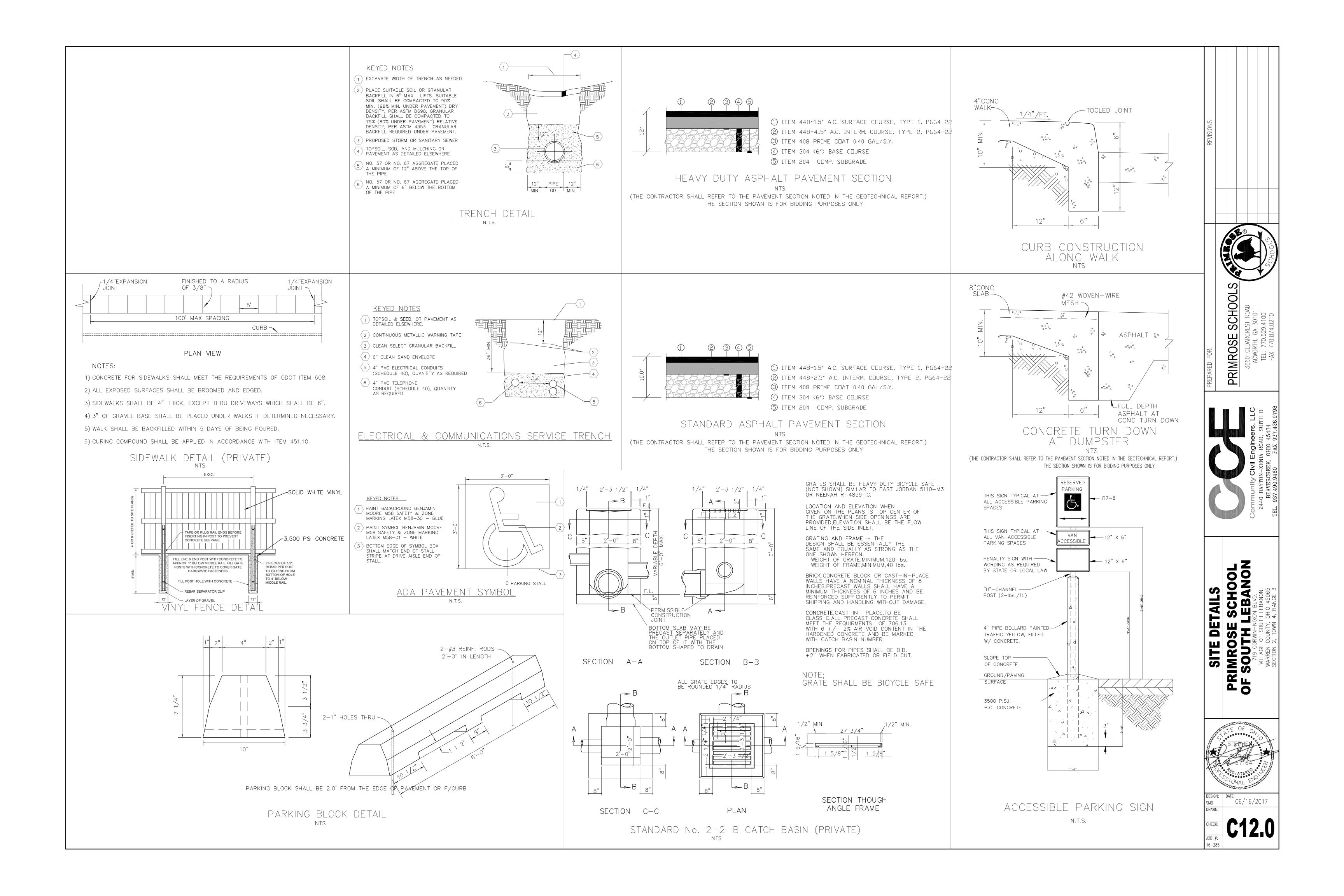


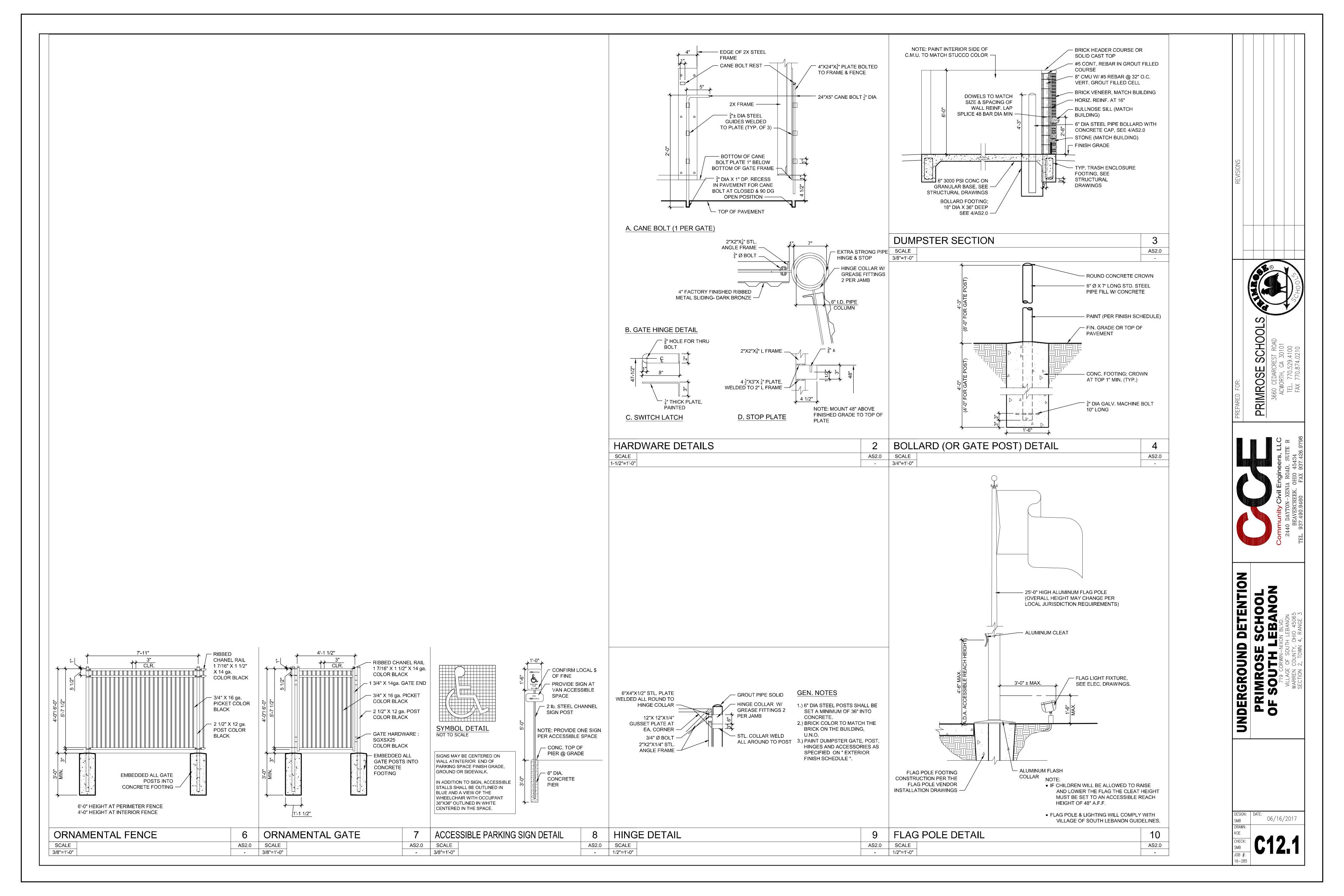
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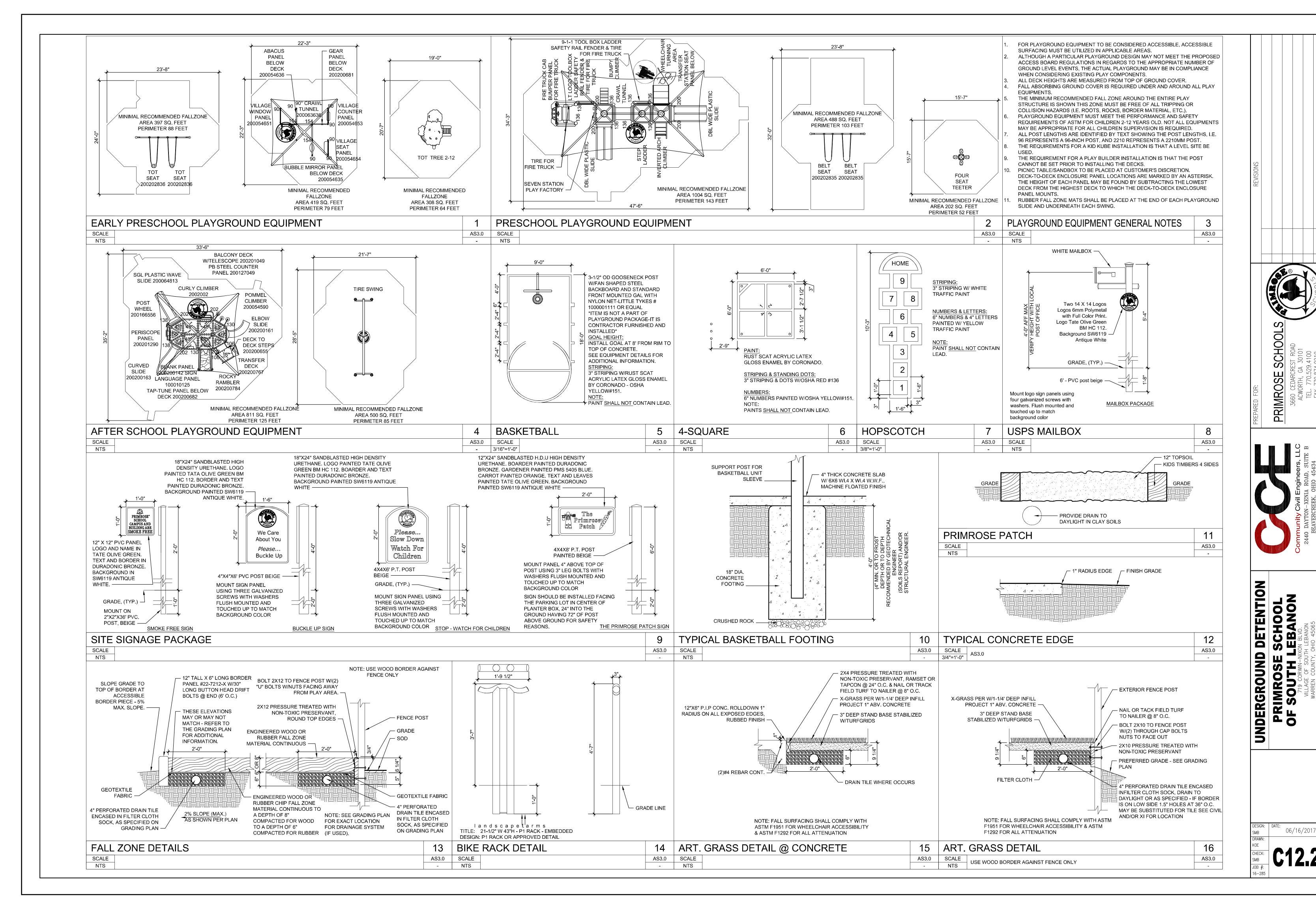


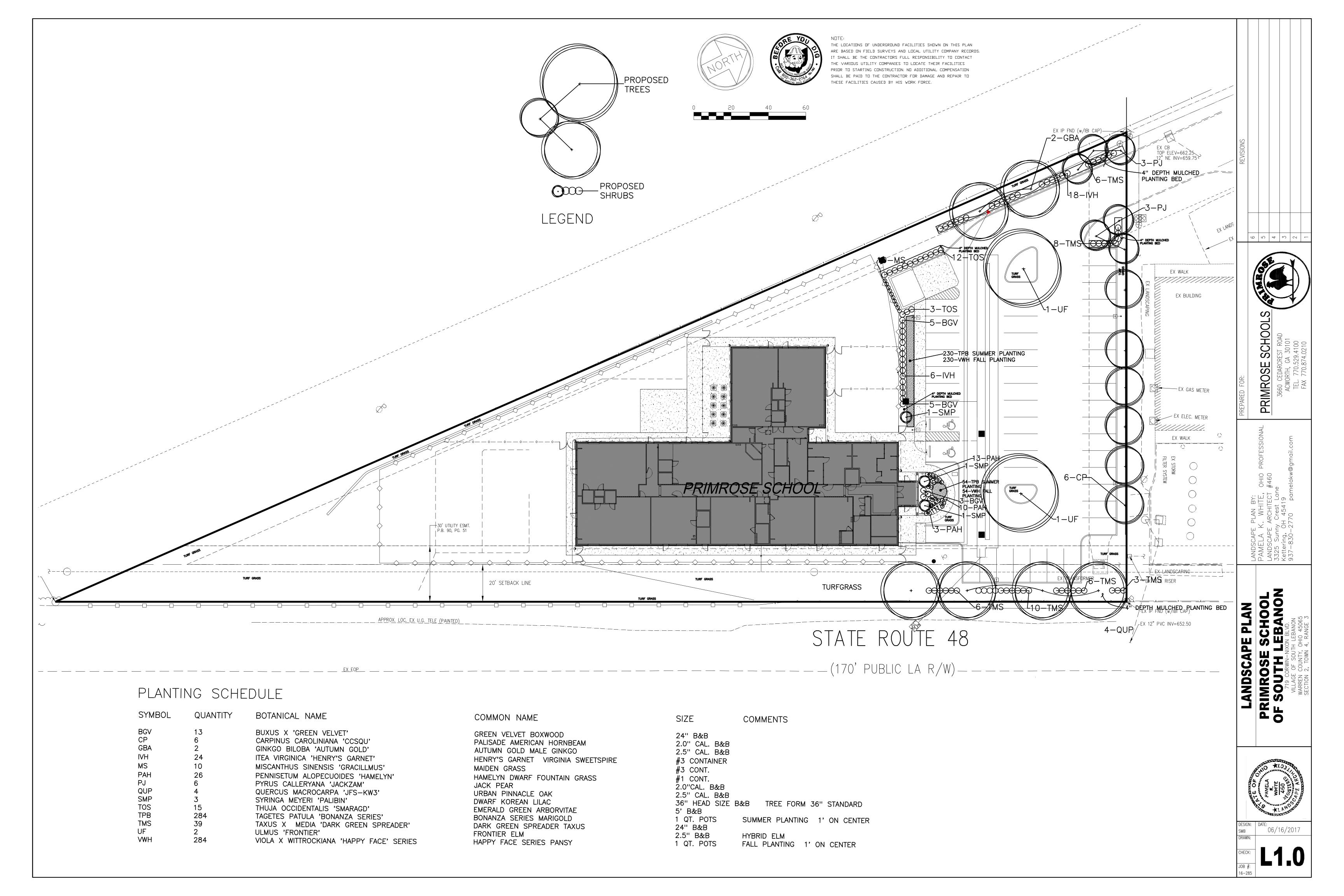


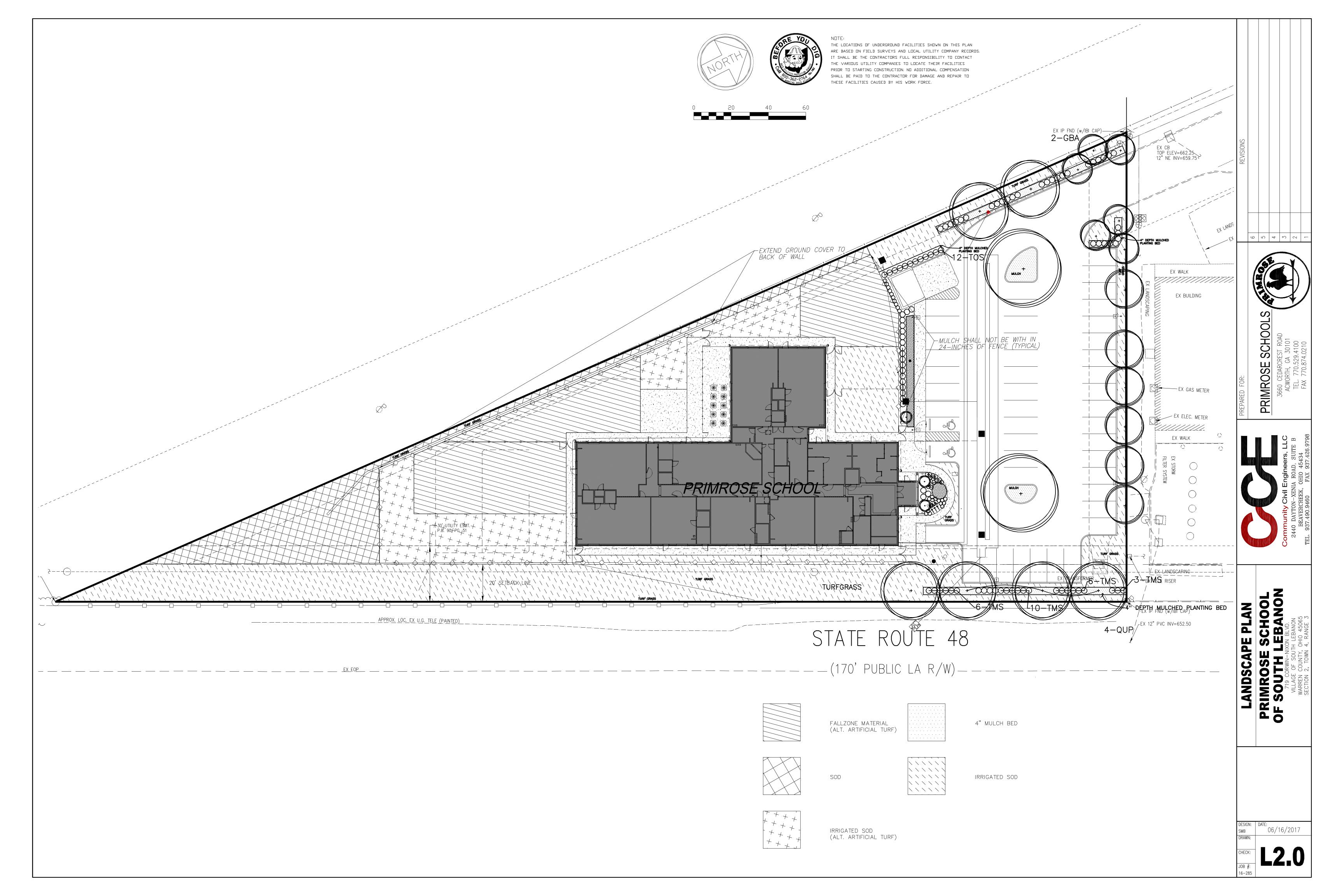
STANDARD NOTES SCHOOL PRIMROSE OF SOUTH L VILLAGE











SCOPE OF WORK

- 1. THIS WORK SHALL CONSIST OF PERFORMING CLEARING AND GRUBBING, SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
- 2. QUANTITY TAKEOFF IS SUPPLIED FOR CONTRACTOR'S ASSISTANCE ONLY. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL PLANT MATERIALS AS PER PLAN.
- 3. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR WITHIN EASEMENT OR RIGHT-OF-WAY LIMITS.

PRESERVATION/PROTECTION (IF APPLICABLE)

- 1. CONTRACTOR SHALL MAINTAIN AND PRESERVE TREES AND SHRUBS NOT BEING REMOVED, INCLUDING THEIR ROOTS. TREE PROTECTION FENCING SHALL BE USED AT THE DRIP LINE OF ALL TREES AND SHRUBS WITHIN 50 FEET OF CONSTRUCTION EXCEPT AS SHOWN ON PLAN. FENCING SHALL REMAIN IN PLACE UNTIL FINAL PLANT INSPECTION FOLLOWING CONSTRUCTION. MATERIALS SHALL NOT BE STOCKPILED WITHIN THIS DEFINED AREA AND VEHICLES AND OTHER EQUIPMENT SHALL BE OPERATED TO AVOID SOIL COMPACTION.
- 2. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA EQUAL TO TWICE THE TREE CIRCUMFERENCE (MEASURED 6" ABOVE THE GROUND LINE IN INCHES) EXPRESSED IN FEET. (EXAMPLE: A CIRCUMFERENCE OF 10" WOULD HAVE A 'NO CUT' ZONE OF 20 FEET IN ALL DIRECTIONS FROM THE TREE). THIS SHOULD APPLY TO UTILITY SERVICES, IF FEASIBLE. THE ONLY EXCEPTION TO THIS REQUIREMENT WILL BE THOSE SPECIFICALLY ALLOWED BY THE LANDSCAPE ARCHITECT, SPECIFICATIONS OR AS INDICATION ON THE
- 3. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING EQUIPMENT OPERATIONS SHALL BE TREATED IN ACCORDANCE WITH THE ARBOR CULTURAL STANDARDS OF

PLANT MATERIALS

- 1. GENERAL ALL MATERIALS SHALL BE OF ITS KIND AVAILABLE AND SHALL HAVE BEEN GROWN IN A CLIMATE SIMILAR TO THAT ON SITE.
- 2. PLANTS ALL PLANTS SHALL BE HEALTHY, OF NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS. QUALITY AND SIZE OF PLANT MATERIAL SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARDS FOR NURSERY STOCK".
- 3. VARIETIES AND SIZES OF PLANTS SHALL BE AS SHOWN ON DRAWINGS.
- 4. PLANTS SHALL BE IN A HEALTHY, VIGOROUS CONDITION, FREE OF DEAD OR BROKEN BRANCHES, SCARS THAT ARE NOT COMPLETELY HEALED, FROST CRACKS, DISFIGURING KNOTS, BROKEN OR ABRADED BARK, REDUNDANT LEADERS OR BRANCHES, OR ABERRATIONS OF ANY KIND. PLANTS SHALL NOT HAVE MULTIPLE LEADERS, UNLESS THIS IS THE NATURAL FORM.
- 5. BALLED AND BURLAPPED (B&B) PLANTS SHALL BE DUG WITH A FIRM ROOT BALL OF NATURAL EARTH, OF A SIZE IN PROPORTION TO THE PLANT'S SIZE, AS MEASURED BY CALIPER, HEIGHT, OR SPREAD. BALLED AND BURLAPPED PLANTS SHALL BE HANDLED ONLY BY THE ROOT BALL, NOT BY THE TRUNK OR BRANCHES, AS THIS MAY BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM. CONTAINER PLANTS SHALL HAVE BEEN ESTABLISHED FOR A MINIMUM OF ONE FULL GROWING SEASON IN THEIR CONTAINERS BEFORE INSTALLATION. CONTAINER PLANTS SHALL BE HANDLED ONLY BY THE CONTAINER, NOT BY THE STEMS OR BRANCHES, AS THIS MAY PULL THE PLANT OUT OF THE CONTAINER AND BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM. BARE-ROOT SHRUBS AND GROUND COVER PLANTS ARE ACCEPTABLE, IF THEY ARE DUG AND INSTALLED AT THE APPROPRIATE SEASON AND HANDLED IN THE APPROPRIATE MANNER.
- 6. PLANTS SHALL BE PROTECTED FROM DRYING OUT DURING SHIPPING WITH TARPAULINS OR OTHER COVERINGS. PLANTS SHALL BE PROTECTED FROM DRYING OUT AFTER DFLIVFRY BY PLANTING IMMEDIATELY: IF THIS IS NOT POSSIBLE, THE ROOT BALL SHALL BE COVERED WITH PEAT MOSS OR EARTH, AND WATERED FREQUENTLY TO KEEP IT MOIST UNTIL PLANTING.
- 7. DO NOT HANDLE, MOVE, BIND, TIE OR OTHERWISE TREAT PLANTS SO AS TO DAMAGE THE ROOT BALL, ROOTS, TRUNK, OR BRANCHES IN ANY WAY.

- 1. TOPSOIL HAS BEEN (OR WILL BE) STOCKPILED FOR REUSE IN LANDSCAPE WORK. IF QUANTITY OF STOCKPILED TOPSOIL IS INSUFFICIENT, PROVIDE ADDITIONAL TOPSOIL AS REQUIRED TO COMPLETE LANDSCAPE WORK. IMPORTED TOPSOIL SHALL CONSIST OF LOOSE, FRIABLE, LOAMY TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL OR REFUSE. ACCEPTABLE TOPSOIL SHALL CONTAIN NOT LESS THAN 3 PERCENT NOR MORE THAN 20 PERCENT ORGANIC MATTER.
- 2. PLANTING BACKFILL FOR PARKING LOT ISLANDS SHALL CONSIST OF A HOMOGENEOUS MIXTURE OF 3 PARTS TOPSOIL TO ONE PART SPHAGNUM PEAT INSTALLED OVER A 6" THICKNESS OF NO. 57 AGGREGATE.

SOIL CONDITIONING

- 1. OBTAIN LABORATORY ANALYSIS OF STOCKPILED AND IMPORTED TOPSOIL COMPLETE WITH RECOMMENDATIONS FOR SOIL AMENDMENT.
- 2. BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.
- 3. MIX SPECIFIED SOIL AMENDMENTS AND FERTILIZERS WITH TOPSOIL AT RATES SPECIFIED BY THE LAB REPORT. DELAY MIXING OF FERTILIZER IF PLANTING WILL NOT FOLLOW PLACING OF PLANTING SOIL WITHIN A FEW DAYS.
- 4. FOR PLANTING BEDS AND LAWNS, MIX PLANTING SOIL EITHER PRIOR TO PLANTING OR APPLY ON SURFACE OF TOPSOIL AND MIX THOROUGHLY BEFORE PLANTING. MIX LIME WITH DRY SOIL PRIOR TO MIXING OF FERTILIZER.
- 5. PREVENT LIME FROM CONTACTING ROOTS OF ACID-LOVING PLANTS.
- 6. APPLY PHOSPHORIC ACID FERTILIZER (OTHER THAN THAT CONSTITUTING A PORTION OF COMPLETE FERTILIZERS) DIRECTLY TO SUBGRADE BEFORE APPLYING PLANTING SOIL AND TILLING.

OTHER MATERIALS

- 1. BED EDGING TRENCH AROUND LANDSCAPE BEDS TO CREATE SHARP, 45 DEGREE EDGE. TYPICAL AT ALL PLANTING BED EDGES WHERE THEY MEET LAWNS.
- 2. MULCH: ORGANIC MULCH FREE FROM DELETERIOUS MATERIALS AND SUITABLE FOR TOP DRESSING OF TREES, SHRUBS, OR PLANTS AND CONSISTING OF THE FOLLOWING: * SHREDDED HARDWOOD BARK MULCH (ALL AREAS NOT BEING SEEDED) NOT LESS THAN 6 MO. AGED, TO BE CERTIFIED BY SUPPLIERS.
- 3. WEED BARRIER POLYETHYLENE FILTER FABRIC DESIGNED TO PERMIT WATER INFILTRATION WHILE PREVENTING WEED GROWTH-TO BE INSTALLED IN ALL PLANTING

GENERAL WORK PROCEDURES

- 1. LANDSCAPE WORK SHALL BE ACCORDING TO THE WORKMANLIKE STANDARDS ESTABLISHED FOR LANDSCAPE CONSTRUCTION AND PLANTING IN THE LOCAL LANDSCAPE
- 2. CONTRACTOR SHALL OBTAIN A COPY OF LOCAL ORDINANCES REGARDING ACCEPTABLE PLANT AND PLANTING DETAILS AND ABIDE BY THOSE ORDINANCES AND DETAILS.
- 3. ENGINEER RESERVES THE RIGHT TO REJECT ALL PLANT MATERIAL DEEMED NOT ACCEPTABLE.
- 4. ANY PROPOSED PLANT SUBSTITUTIONS SHALL BE EQUIVALENT IN FORM, HABIT, STRUCTURE, BRANCHING AND LEAF TYPE AND MUST BE ISSUED TO THE LANDSCAPE ARCHITECT FOR APPROVAL, IN WRITING, PRIOR TO INSTALLATION.

PLANTING

- 1. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE OWNER BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- 2. PLANTING PITS SHALL BE AS PER DETAILS.
- 3. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT. COMPLETE BACKFILLING AND WATER THOROUGHLY.
- 4. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH PLANT.
- 5. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- 6. INSTALL BED EDGING AND MULCH.
- 7. REMOVE ALL SALES TAGS, STRINGS, STRAPS, WIRE, ROPE OR OTHER MATERIALS THAT MAY INHIBIT PLANT GROWTH BOTH ABOVE AND BELOW THE SURFACE OF THE SOIL.
- 8. REMOVE ANY BROKEN, SUCKERING, DISEASED, CRISSCROSSED OR AESTHETICALLY DISPLEASING BRANCHES BACK TO LIVE LEADER OR SIDE LATERAL WITH A FLUSH CUT.
- 9. MULCH TREES AND SHRUBS AND OTHER AREAS NOTED ON THE PLANTING PLAN WITH A 3" LAYER OF MULCH AS SPECIFIED IN NOTE 2 OF "OTHER MATERIALS".

FINISH GRADING

- 1. ALL AREAS WILL BE GRADED BY THE CONTRACTOR TO SUBSTANTIALLY PLUS/MINUS 0.1 FOOT OF FINISH GRADE.
- 2. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN, UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.
- 3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
- 4. PARKING LOT ISLAND SHALL BE BACKFILLED AS PART OF THIS CONTRACT.

GROUND COVER

- 1. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
- 2. MULCH GROUND COVER WITH 2" THICKNESS OF SPHAGNUM PEAT.
- 3. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
- 4. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S

GUARANTEE

1. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.

CLEANUP

1. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE. THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. AN 'ACCEPTABLE CONDITION' SHALL BE AS DEFINED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

MAINTENANCE

- (MAINTENANCE PERIOD TO COMMENCE AFTER FINAL INSPECTION.)
- 1. MAINTENANCE PERIOD FOR THIS CONTRACT SHALL BE 90 CALENDAR DAYS COMMENCING AFTER FINAL INSPECTION OF CONSTRUCTION.
- 2. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED.
- 3. MAINTAIN LAWNS BY WATERING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- 4. MAINTAIN THE LANDSCAPING BY KEEPING ALL PLANTS DISEASE-FREE AND PLANTING BEDS GROOMED, EXCEPT IN NATURALLY OCCURRING VEGETATION AREAS.
- 5. REPLACE ANY REQUIRED PLANTING(S). WHICH SEVERELY DECLINE OR DIE AFTER THE DATE OF PLANTING. SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT APPROPRIATE PLANTING SEASON.

1. SOD SHALL BE FIRST GRADE CERTIFIED KENTUCKY BLUEGRASS BLEND CONTAINING NOT MORE THAN 30 PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS. SOD SHALL BE RECENTLY MOWED TO A HEIGHT OF NOT LESS THAN 3 INCHES. IT SHALL BE CUT INTO STRIPS OF NOT LESS THAN 3 FEET AND NOT OVER 6 FT. WITH A UNIFORM WIDTH OF NOT OVER 24 INCHES. THE SOD SHALL BE CUT TO A DEPTH EQUAL TO THE GROWTH OF THE FIBROUS ROOTS BUT IN NO CASE LESS THAN 1 INCH. SOD SHALL BE DELIVERED TO THE JOB WITHIN 24 HOURS AFTER BEING CUT AND SHALL BE INSTALLED WITHIN 48 HOURS AFTER BEING CUT. BEFORE SOD IS PLACED, THE SOD BED WILL HAVE BEEN EXCAVATED TO SUCH A DEPTH THAT WHEN THE SOD IS IN PLACE THE TOP OF THE SOD WILL BE FLUSH WITH THE SURROUNDING GRADE. NO SOD SHALL BE PLACED WHEN THE TEMPERATURE IS BELOW 32 DEGREES F. NO FROZEN SOD SHALL BE PLACED NOR SHALL ANY SOD BE PLACED ON FROZEN SOIL. WHEN SOD IS PLACED BETWEEN THE DATES OF JUNE 1ST AND OCTOBER 15th, IT SHALL BE COVERED IMMEDIATELY WITH A STRAW MULCH 1 INCH THICK (LOOSE MEASUREMENT). AFTER LAYING, THE SOD SHALL BE WATERED THOROÙGHLY AND TAMPED WITH APPROVED SOD TAMPERS SUFFICIENTLY TO BRING THE SOD INTO CLOSE CONTACT WITH THE SOD BED AND INSURE TIGHT JOINTS BETWEEN THE SECTIONS OR STRIPS. THE CONTRACTOR SHALL KEEP ALL SODDED AREAS INCLUDING SUBGRADE, THOROUGHLY MOIST FOR 30 DAYS AFTER SODDING. THE CONTRACTOR SHALL REPAIR ANY AREAS DAMAGED FOLLOWING INSTALLATION AS DIRECTED BY THE ENGINEER. SOD SHALL BE IN PLACE AT LEAST 30 DAYS BEFORE FINAL ACCEPTANCE.

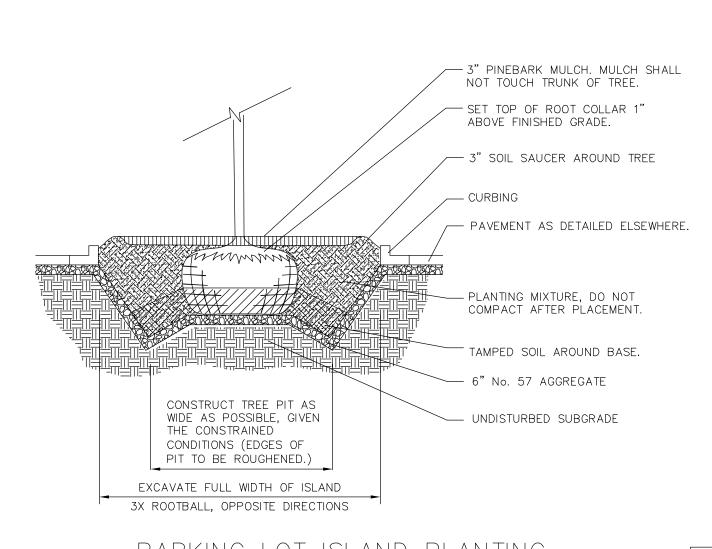
PLANTING SCHEDULE

1. ALL PLANTING IS RECOMMENDED TO BE DONE WITHIN THE FOLLOWING DATES. WHEN PLANTING OUTSIDE THESE DATES, WRITTEN DOCUMENTATION SHALL BE PROVIDED THAT SURVIVAL OR REPLACEMENT WILL BE ENSURED. NO PLANTING SHALL BE DONE IN FROZEN SOIL.

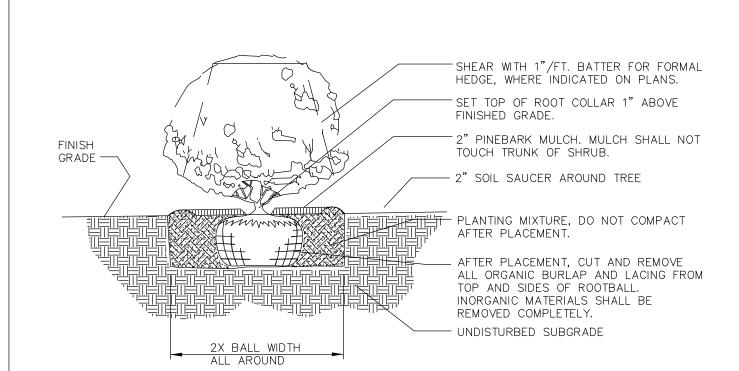
NORMAL PLANTING SEASONS SPRING MARCH 15-MAY 15 OCTOBER 1-DECEMBER 1 ALL TREES AND SHRUBS APRIL 1-MAY 15 OCTOBER 1-NOVEMBER 15 **EVERGREENS** GROUNDCOVERS APRIL 1-JUNE1 WHEN SOD IS WORKABLE SEED AND MULCH APRIL 1-MAY 15 OCTOBER 1-NOVEMBER 15

GENERAL NOTE

1. ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE WITHIN THE RIGHT-OF-WAY SHALL BE FINE GRADED TO MAINTAIN POSITIVE DRAINAGE, HAVE A 6" LAYER OF TOPSOIL APPLIED AND BE SEEDED ACCORDING TO SPECIFICATIONS ON THIS SHEET.



PARKING LOT ISLAND PLANTING



SHALL BE REMOVED COMPLETELY. PLANTING MIXTURE, DO NOT COMPACT AFTER PLACEMENT. - UNDISTURBED SUBGRADE 3X BALL WIDTH ALL AROUND

-PRUNE ONLY DEAD AND BROKEN

ROOTBALL.

FINISHED GRADE.

TOUCH TRUNK OF TREE.

BRANCHES, NEVER CUT A LEADER

(2) 2"x2" STAKES, 1/3 TREE HEIGHT, w/

NON-CHAFING ADJUSTABLE TREE TIES, 2

TIES PER TREE. DO NOT DRIVE THROUGH

3" PINEBARK MULCH. MULCH SHALL NOT

AFTER PLACEMENT, CUT AND REMOVE

BASKET FROM TOP AND SIDES OF

ALL ORGANIC BURLAP, LACING AND WIRE

ROOTBALL. OTHER INORGANIC MATERIALS

NON-CHAFING ADJUSTABLE TREE TIES ON

3" PINEBARK MULCH. MULCH SHALL NOT

— 3" SOIL SAUCER AROUND TREE

SHALL BE REMOVED COMPLETELY.

AFTER PLACEMENT.

UNDISTURBED SUBGRADE

SET TOP OF ROOT COLLAR 1" ABOVE

EACH MAJOR TRUNK

TOUCH TRUNK OF TREE.

FINISHED GRADE.

WWW. ARE TRANSPORTED TO SUPPLY AND LUB ASKUTTLE PROMOTED ANY ARED CORDES OF

SET TOP OF ROOT COLLAR 1" ABOVE

— 3" SOIL SAUCER AROUND TREE

TREE PLANTING AND STAKING

2"x2" STAKE

APPROVED

EQUAL

FINISH GRADE —

FINISH GRADE -

WONDER TIES OR

TENTIO $\overline{0}$ HOH I G M SOUTH SOUTH

8 — DEADMAN (QTY. 3) IN COMPACTED SOIL G X AFTER PLACEMENT, CUT AND REMOVE ALL ORGANIC BURLAP, LACING AND WIRE Ш ROOTBALL. OTHER INORGANIC MATERIALS PLANTING MIXTURE, DO NOT COMPACT

MULTISTEM TREE PLANTING AND STAKING

2X BALL WIDTH ALL AROUND

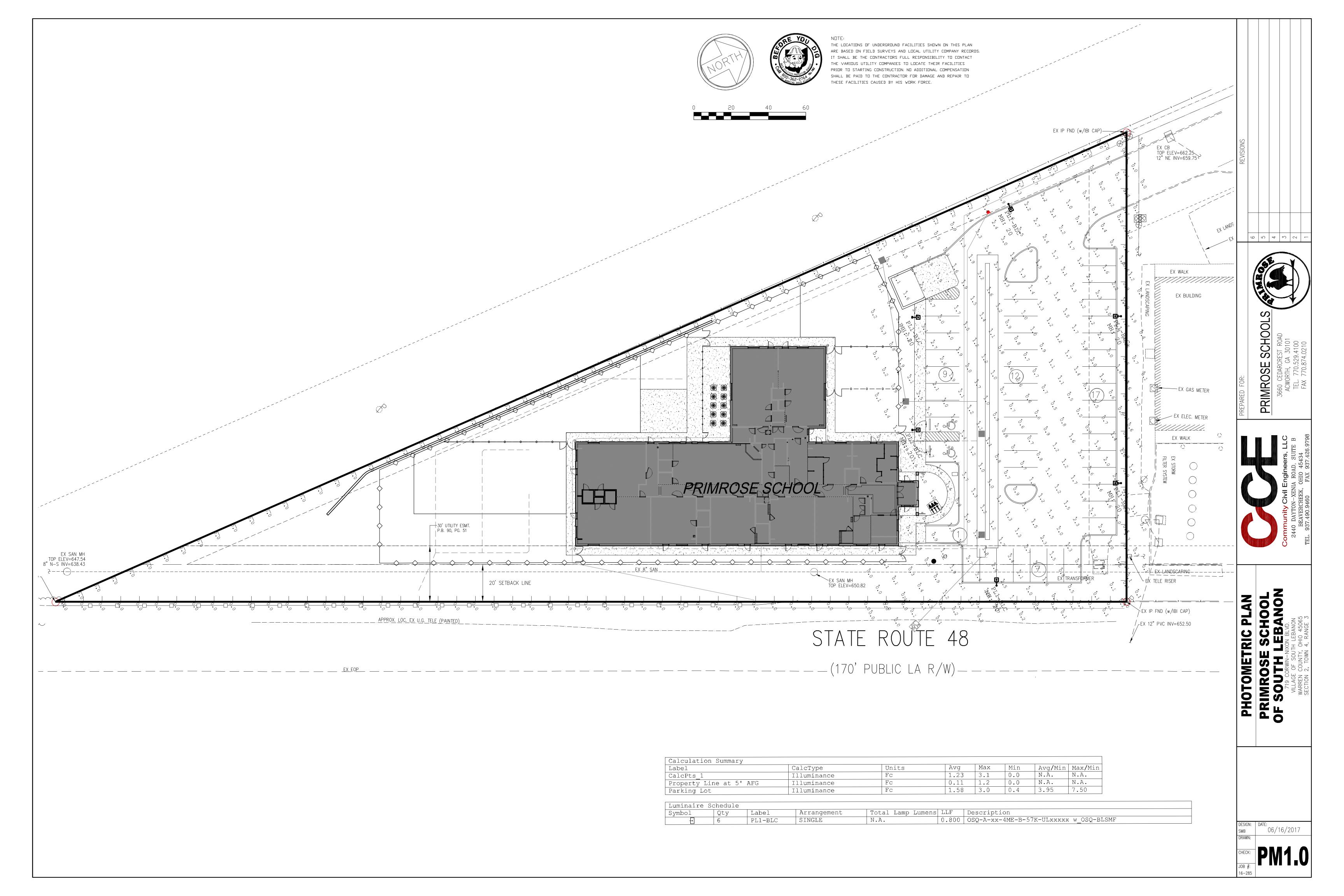


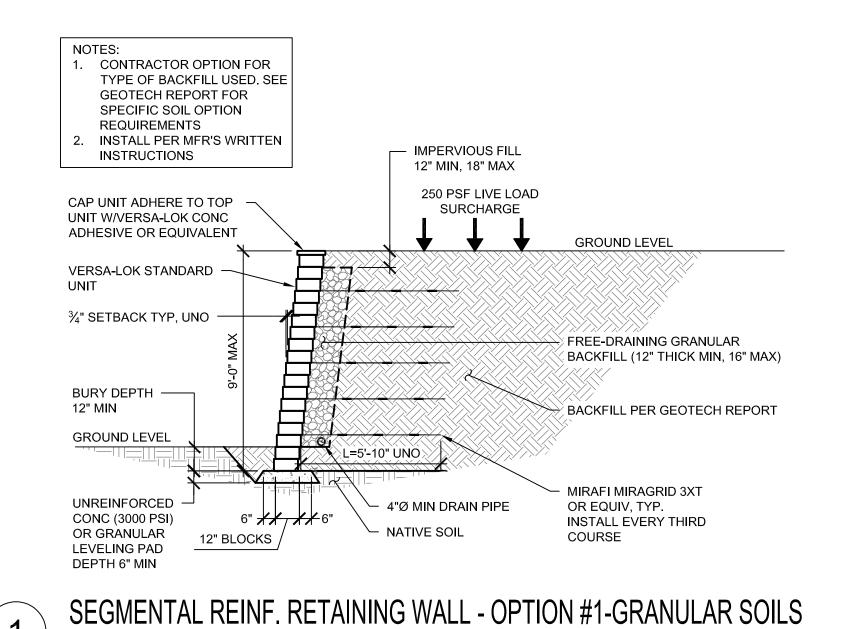
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PRIMR





SCALE: NTS

FENCING SYSTEMS APPROVED FOR USE W/ SLEEVE-IT(TM) 1224R ARE LIMITED TO THE FOLLOWING HEIGHTS: CHAIN LINK-UP TO 8'-0", PRIVACY-UP TO 6'-0" (WOODEN, PVC, METAL), POST SIZE 4"x4" MAX SLEEVE-IT(TM) 1224R 12"Øx24" DÈEP FENCE POST OR HANDRAIL POST FILL SLEEVE W/ CONC, SET FENCE POST SET POSITION OF -- CUT GEOGRID AROUND SLEEVE IMMEDIATELY THE SLEEVE-IT(TM) BEHIND TOP MOST SYSTEM AS NECESSARY VERSA-LOK UNIT REINFORCED BACKFILL COMPACTED 95% OF MAX STANDARD PROCTOR DENSITY

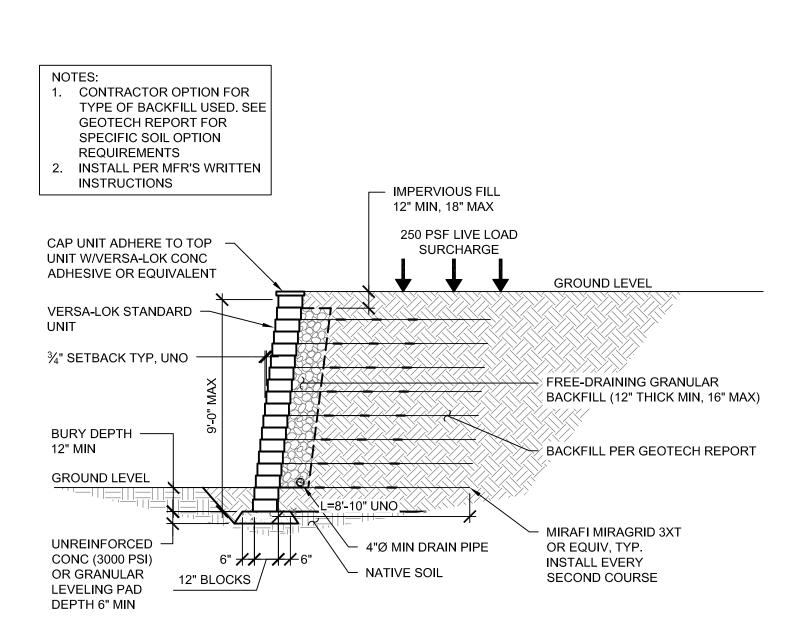
STRATA SYSTEMS FOR COMPLETE SPECS AND TECHNICAL GUIDANCE — SLEEVE-IT(TM) 1224R LID REAR SLEEVE HALF FRONT SLEEVE HALF CANTILEVER BASE VERTICAL SLEEVE-IT(TM) ISO 1224R

SEE SLEEVE-IT(TM) SYSTEM MANUF,

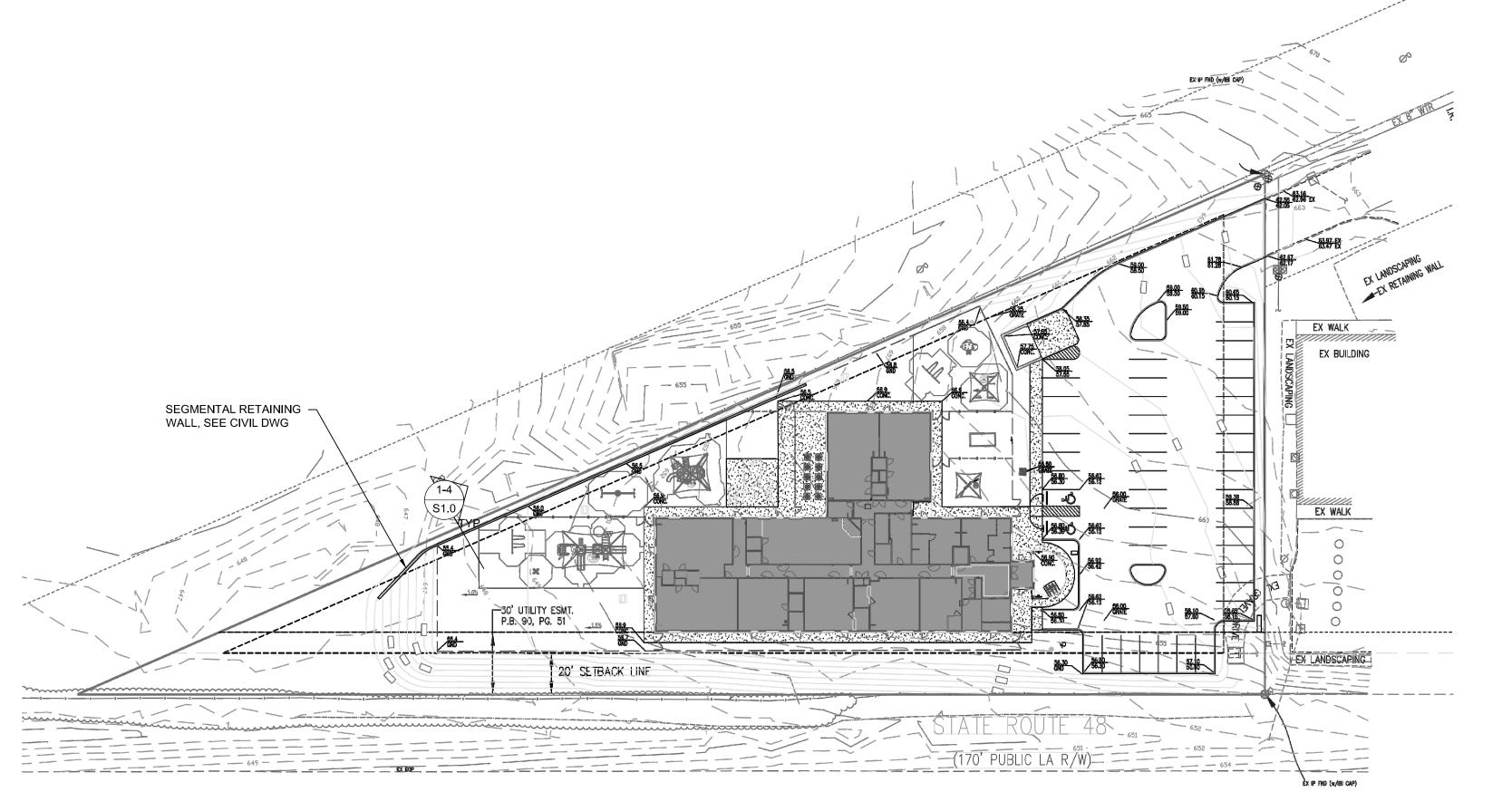
TYPE OF BACKFILL USED. SEE GEOTECH REPORT FOR SPECIFIC SOIL OPTION REQUIREMENTS INSTALL PER MFR'S WRITTEN IMPERVIOUS FILL INSTRUCTIONS 12" MIN, 18" MAX 250 PSF LIVE LOAD CAP UNIT ADHERE TO TOP SURCHARGE UNIT W/VERSA-LOK CONC ADHESIVE OR EQUIVALENT **GROUND LEVEL** VERSA-LOK STANDARD 3/4" SETBACK TYP, UNO FREE-DRAINING GRANULAR BACKFILL (12" THICK MIN, 16" MAX) BURY DEPTH ——— 12" MIN BACKFILL PER GEOTECH REPORT **GROUND LEVEL** MIRAFI MIRAGRID 3XT UNREINFORCED -- 4"Ø MIN DRAIN PIPE OR EQUIV, TYP. CONC (3000 PSI) INSTALL EVERY THIRD OR GRANULAR COURSE 12" BLOCKS LEVELING PAD DEPTH 6" MIN

FENCE POST DETAIL W/ SLEEVE-IT(TM) 1224R

SEGMENTAL REINF. RETAINING WALL - OPTION #2-CONDITIONED LEAN CLAY



SEGMENTAL REINF. RETAINING WALL -OPTION #3- IN-SITU LEAN CLAY SCALE: NTS



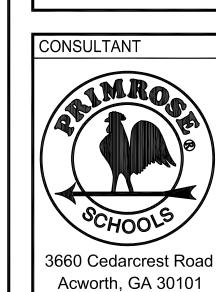
NOTES:

1. CONTRACTOR OPTION FOR

PARTIAL SITE PLAN FOR RETAINING WALLS

STRUCTURAL BEAUDETTE CONSULTING ENGINEERS, INC. MISSOULA KALISPELL **BOZEMAN RAPID CITY** (406) 721-7315

WWW.BCEWEB.COM



PROJECT IDEN. Primrose School at Lebanon, OH

ISSU	JE BLOCK
	06/09/2017

MANAGEMENT PROJECT NO.: 17-0596 DRAWN BY: ALM CHECKED BY: TKP

> SHEET TITLE RETAINING WALL PLAN & **DETAILS**

SHEET IDENTIFICATION S1.0