

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Rcvd. NEFO

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 3720.9.2020
1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name: 1111 Church Street Residences				NPDES Tracking Number: TNR			
Street Address or Location: 1111 Church St, Nashville TN, 37203			C	Construction St	tart Date:		
			E	Estimated End	Date:		
Site Proposed	 	.atitude (dd.dd		36.15855			
Description:		<u> </u>		ongitude (-dd.		-86.78876	
County(ies): Davidson		MS4 (if applicable): Na		Acres Disturbe	d:	1.64	
Check box if a SWPPP is	attached : 🔽 Chec	k box if a site location ma	ap is attached: 🔽 📗 1	otal Acres:		1.64	
Check the appropriate box	x(s) if there are streams	and/or wetlands on or a	djacent to the constructi	on site:	Streams	Wetlands	
Has a jurisdictional determ Note: if yes, attach the jur	•		ifying waters of the Unit	ed States?:	Yes	No	
If an Aquatic Resource Alt	teration Permit (ARAP) h	nas been obtained for thi	is site, what is the perm	it number? NR	R(S)		
Receiving waters: Cumb	erland River						
Site Owner/Developer (F over construction plans ar							
For corporate entities only (an incorrect SOS control	/, provide correct Tenne number may delay NOI	ssee Secretary of State processing)	(SOS) Control Number	0010328	75		
Site Owner or Developer (Contact Name: (signs th	e certification below)	Title or Position: Principal Architect				
à			•	*	,	7: 40004	
Mailing Address: 520 We	est 27th St, Suite 403		City: New York State: NY Z		Zip: 10001		
Phone: (646) 630-0236			E-mail: twilson@flankonline.com				
Optional Contact: Josh Hunter			Title or Position: Engineering Consultant				
Mailing Address: 315 Woodland St			City: Nashville	State: TN		Zip: 37206	
Phone: (615) 244-8591			E-mail: jhunter@ragansmith.com				
Owner/Developer(s) Cer	tification: (must be sign	ed by president, vice-pres	sident or equivalent, or ra	anking elected o	official) (Pri	imary Permittee)	
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.							
Owner/Developer Name (print/type): Todd Wilson			Signature: Yould & Will		Date:	Date: 9.24.2020	
Owner/Developer Name (print/type):			Signature:		Date:	Date:	
Contractor Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)							
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury.							
Contractor name, address, and SOS control number (if applicable):			Signature:	Date:			
OFFICIAL STATE USE ONLY							
Received Date: 10.8.20	Reviewer:	Field Office: 04	Permit Tracking Number: 17	44610	Exceptional	TN Water:	
Fee(s): 250.	T & E Aquatic Flora/Fauna:	SOS Corporate Status:	Waters with Unavailable Par	ameters:	Notice of Co	overage Date:	

NASHVILLE, TN 37206-0070

PINNACLE BANK NASHVILLE, TN

87-863/640

Two Hundred Fifty and no/100

046250

NO.

PAY

DOLLARS AND

CENTS 10/06/20

46250

\$250.00

TO THE ORDER OF

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVA WILLIAM R SNODGRASS TENNESSEE TOWER

312 ROSA L PARKS AVENUE

10TH FLOOR

NASHVILLE TN 37243

RAGAN-SMITH-ASSOCIATES, INC.

AUTHORIZED SIGNATU AUTHORIZED SIGNATURE

0/05/2020	ASSOCIATES, INVOICE NO. 100520	COMMENT	AMOUNT	T
1.00/2020	100020	19-109/1590; NOI/SWPPP Review Fee	AMOUNT	NETAMOUNT
				250.00
		PECEIVED		
		OCT - 9 2020		
		BY:		
ATE 10/06/2	0	VENDO -		
lobal Sourcing 800-8		VENDOR Tennessee Department of Environment & Co	TOTAL	250.00

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

1111 CHURCH STREET RESIDENCES METROPOLITAN NASHVILLE DAVIDSON COUNTY, TENNESSEE

AUGUST 6, 2020

The project will consist of: clearing, grubbing, grading, and construction of utility infrastructure, paving, curbs, and sidewalk for a Multi-Family Development.

PREPARED BY:



315 Woodland Street Nashville, Tennessee 37206 (615) 244-8591

19-109/1590



October 8, 2020

VIA E-MAIL: lonna.justus@tn.gov

Ms. Lonna Justus, CPS Division of Water Resources Nashville Environmental Field Office 711 R.S. Gass Blvd. Nashville, TN 37243

RE: 1111 CHURCH STREET

NOI / SWPPP SUBMITTAL NASHVILLE, TENNESSEE

Dear Lonna:

We are pleased to electronically submit the signed NOI & SWPPP with accompanying EPSC plans. A \$250 review fee check will be hand delivered to your office today.

If you have any questions or need anything further, please contact us.

Sincerely,

RAGAN-SMITH ASSOCIATES, INC.

Josh Hunter, P.E. Civil Engineer

JWH:cmm

Attachments

STORM WATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION						
Project name and	1111 Church Street	Owner Name and	FLANK			
Location:	Residences	Address:				
			Todd Wilson			
	1111 Church St,		520 West 27 th St, Suite 403			
	Nashville, TN 37203		New York, NY 10001			
Description:	The project will consist of: clearing and grubbing, grading, construction of utility infrastructure, paving, curbs, and sidewalk for a Multi-Family Development.					
Runoff Coefficient:	The post-construction runoff coefficient within the disturbed area is					
	approximately 0.95					
Disturbed Area:	The disturbed area is approximately 1.64 acres.					
Receiving Waters: Cumberland River via Kerrigan Combined Sewer						

SWPPP requirements are referenced from Tennessee Construction General Permit – Permit No. TNR100000; issued/effective October 1, 2016; expires September 30, 2021.

3.1.1 - PLANS AND SPECS FOR STRUCTURAL CONTROL MEASURES PREPARED AND STAMPED BY PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT. (INCLUDES ENGINEERING DESIGN OF SEDIMENT BASIN/CONTROLS FOR PROJECTS 10 ACRES OR GREATER; REFERENCE SUBSECTION 5.5.3.3 (5 ACRES IF IMPAIRED/EXCEPTIONAL WATERS, REFERENCE SUBSECTION 5.4.1)).

Construction site plans have been prepared and stamped by a Professional Engineer or Landscape Architect that has working knowledge of erosions prevention and sediment controls. A watershed map has been included to delineate the drainage basins for each outfall.

3.1.2 - QUALITY ASSURANCE SITE ASSESSMENT DESCRIBED.

Quality assurance of erosion prevention and sediment controls shall be done by performing site assessment at the site. An assessment shall be conducted at each outfall involving drainage totaling 10 or more acres or 5 or more acres if draining to an impaired or exceptional quality waters, within a month of construction commencing at each portion of the site that drains the qualifying acreage of such portion of the site. The site assessment shall be performed by individuals with following qualifications:

- A licensed professional engineer or landscape architect
- A Certified Professional in Erosion and Sediment Control (CPESC)
- A person that successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course

As a minimum, site assessment should be performed to verify the installation, functionality, and performance of the EPSC measures. The site assessment should be performed with the inspector

and should include a review and update of the SWPPP. The findings shall be documented, and the documentation kept with the SWPPP at the site. At a minimum, the documentation shall include information included in the inspection form provided in Appendix B. The site assessment can take place of one of the twice weekly inspections requirement from subsection 3.5.8.2.

3.3.1 - THE SWPPP IS SIGNED BY THE OPERATOR(S) IN ACCORDANCE WITH SUBPART 7.7.

The SWPPP has been signed by the operator.

3.3.3 - LOCATION OF THE ON-SITE SWPPP.

The SWPPP shall be kept on site and made available upon request. If the site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located offsite, reasonable local access to the plan, during normal working hours, must be provided.

3.5.1.A - DESCRIPTION OF ALL CONSTRUCTION ACTIVITIES (NOT JUST GRADING AND STREET CONSTRUCTION).

- 1) Installation of initial erosion controls.
- 2) Clearing, grubbing, and grading.
- 3) Utility construction.
- 4) Installation of interim erosion controls.
- 5) Construction of building pads.
- 6) Construction of structures
- 7) Final grading and erosion controls.

3.5.1.B - INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH DISTURB SOILS OR MAJOR PORTIONS OF THE SITE.

- 1) Construction of temporary entrance.
- 2) Placement of siltation control barriers (silt fencing).
- 3) Demolition and removal of existing structures if necessary.
- 4) Clearing and grubbing and stockpiling of topsoil.
- 5) Begin excavation and the placement of embankment.
- 6) Construction of diversion ditches and swales.
- 7) Sanitary sewer construction.
- 8) Storm sewer and utility trenching.
- 9) Placement of inlet and outlet protection.
- 10) Sediment removal and final excavation.
- 11) Final slope and stabilization (limited).
- 12) Adjustment of silt fencing to any new contours.
- 13) Final placement of embankment and the construction of additional erosion-siltation barriers.
- 14) All slopes and ditches stabilized.
- 15) All utilities and parking areas constructed to subgrade.
- 16) Removal of sediment from control structures.

- 17) Construction of building
- 18) Construction of pavement, concrete and curbing.
- 19) Final stabilization & dressing of project.
- 20)Removal of silt fencing, stone filter rings, and other temporary erosion and sediment control.

3.5.1.C - ESTIMATES OF THE TOTAL SITE AREA VERSUS THE DISTURBED AREA.

The total site area is approximated at 1.51 acres. The disturbed area is approximated at 1.64 acres. See attached construction site plans.

3.5.1.D - DESCRIPTION OF TOPOGRAPHY, ESTIMATION OF PERCENT SLOPE FOR EACH OUTFALL ALONG WITH IDENTIFICATION ON THE SITE PLANS OF OUTFALL POINTS INTENDED FOR COVERAGE UNDER THE CGP.

Estimation for the percent slope of each outfall is no more than 4.20% as shown on the plans.

3.5.1.E – ANY DATA BRIEFLY DESCRIBING THE SOIL TYPE AND HOW THE SOIL TYPE WILL DICTATE THE NEEDED CONTROL MEASURE AND HOW RUNOFF MAY BE AFFECTED.

A geotechnical report was preformed on September 24, 2019. The existing soil type does not appear to have any expected effects on site runoff.

3.5.1.F – AN ESTIMATE OF THE RUNOFF COEFFICIENT OF THE SITE AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED AND THE ESTIMATE OF THE PERCENTAGE OF IMPERVIOUS AREA BEFORE AND AFTER CONSTRUCTION.

The post-construction runoff coefficient within the disturbed area is approximately 0.95. The existing conditions site is 100% impervious area. The proposed site post construction is 100% impervious area. However, a green roof and cistern have been proposed to create a 41% volume reduction in site runoff.

3.5.1.G --THE PROPOSED LOCATION OF ALL MAJOR STRUCTURAL/NONSTRUCTURAL CONTROLS AND ALL PROPOSED STABILIZATION PRACTICES TO BE USED SHALL BE DEPICTED ON THE SITE CONSTRUCTION PLANS.

All structural/nonstructural controls and proposed stabilization practices to be used and intended for coverage under the CGP are clearly depicted on the construction site plans.

3.5.1.H – DESCRIPTION OF ANY DISCHARGE ASSOCIATED WITH AN INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION STORMWATER THAT ORIGINATES ON SITE AND LOCATION OF THAT ACTIVITY AND ITS PERMIT NUMBER.

There is no discharge associated with an industrial activity other than construction stormwater which originates on site.

3.5.1.I -- COMPLETE INVENTORY OF AQUATIC RESOURCES (INCLUDING ANY STREAM, SINKHOLE OR WETLAND) ON OR ADJACENT TO THE PROJECT. ARAP PERMIT OR TRACKING # IF APPLICABLE.

There are no streams or wetlands on or adjacent to the project so ARAP and CORP permits are not applicable.

3.5.1.J -- NAME OF THE RECEIVING WATER(S), AND APPROXIMATE SIZE AND LOCATION OF AFFECTED WETLAND ACREAGE AT THE SITE.

The site drains to Cumberland River via Kerrigan Combined Sewer and no wetlands are affected with this development.

3.5.1.K – IF APPLICABLE, CLEARLY IDENTIFY AND OUTLINE THE BUFFER ZONES ESTABLISHED TO PROTECT WATERS OF THE STATE LOCATED WITHIN THE BOUNDARIES OF THE PROJECT.

The applicable buffer zones have been clearly located for this project on the construction site plans.

3.5.1.L – IF A PRE-CONSTRUCTION SITE IS A SUBDIVIDED LOT PART OF AN OVERALL SUBDIVISION, THE SITE-WIDE DEVELOPER/OWNER MUST DESCRIBE EPSC MEASURES IMPLEMENTED AT THOSE INDIVIDIUAL LOTS. ONCE THE PROPERTY IS SOLD, THE NEW OPREATOR MUST OBTAIN COVERAGE UNDER THIS PERMIT.

This project is currently not part of an overall subdivision.

3.5.1.M - FOR PROJECTS WITH MORE THAN 50 ACRES OF DISTURBANCE, CONSTRUCTION PHASES MUST BE NOTED. (REFERENCE SUBSECTION 3.5.3.1).

Disturbance acreage is less than 50 acres; therefore, no phasing will be needed for this project.

3.5.1.N - LIMITS OF DISTURBANCE CLEARLY MARKED.

Limits of disturbance are clearly shown on the construction site plans. Areas to be undisturbed are to be clearly marked in the field before construction activities begin.

3.5.2 - DESCRIPTION OF STORMWATER RUNOFF CONTROLS.

Construction Entrance/Exit(s), consisting of a stone-stabilized pad located at any point where traffic will be leaving the construction site to a public roadway will be constructed prior to clearing, grubbing, grading. Siltation control barriers (silt fence) will be placed on contours prior to clearing, grubbing, grading. Siltation control barriers (silt fence) will be adjusted and placed along the newly established contours until the development is stabilized. Disturbance within the 30ft Riparian Buffer Zone 1 and 2 is proposed. Enhanced EPSC measures are proposed to protect the stream. At the

eastern edge of the existing roadway, a double row of silt fence with hay bales is proposed. See construction documents for location and details of this EPSC measure. Contractor shall ensure this measure is in place throughout construction and can be removed after stabilization is completed. Street and/or curb inlet protection devices will be placed in all inlets upon the construction of the storm water sewer system. The curb inlet protection devices will remain in place through the entire construction period. Riprap will be placed at all headwall outlets and will remain until final stabilization. Proper temporary matting, to help vegetation growth, will be applied when necessary. Reference the construction site plans for locations of EPSC applications and more details and specifications of EPSC measures.

Reference the construction site plans for the Initial Erosion Control Plan; Grading, Drainage, and Erosion Control Plan; and Final Erosion Control Plan. The site superintendent/EPSC professional will select an individual who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.

3.5.2.B - SPECIFIES WHICH PERMITEE IS RESPONSIBLE FOR IMPLEMENTATION OF WHICH EPSC.

The Permittee responsible for implementation of EPSC will be determined prior to construction.

3.5.3 - EPSC WILL BE IMPLEMENTED BEFORE EARTH-MOVING BEGINS. REFERENCE SUBSECTION 3.5.1.A AND CONSTRUCTION PLANS.

EPSC will be implemented correctly before any earth-moving begins.

3.5.3.1.A – THE CONSTRUCTION-PHASE EROSIONS PREVENTION CONTROLS. REFERENCE THE CONSTRUCTION SITE PLANS.

EPSC have been designed to eliminate or minimize the dislodging and suspension of soil in water. Sediment control has been designed to retain mobilized sediment on site to the maximum extent practicable.

3.5.3.1.B - BEST MANAGEMENT PRACTICES (BMP).

BMPs described in this SWPPP and the construction site plans pertaining to this site are in accordance with the Tennessee Erosion and Sediment Control Handbook.

3.5.3.1.C – PERMANENT OR TEMPORARY VEGETATION TO BE USED AS A CONTROL MEASURE. TIMING AND SCHEDULE OF PLANTING FOR VEGETATION TO BE USED FOR CONTROLS.

There is currently no permanent or temporary vegetation to be used as a control measure and the schedule thereof is not described in the construction site plans.

3.5.3.1.D - IF SEDIMENT ESCAPES THE PERMITTED AREA.

Off-site accumulation of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. Fugitive sediment that has escaped the construction site and has collected in a street must be removed by the next rain in order to prevent the sediment from entering the storm sewers and streams. Permittees shall not initiate remediation/restoration of a stream without consulting the division first. This permit does not authorize access to private property. Arrangements concerning removal of sediment on adjoining the property must be settled by the permittee with the adjoining landowner.

3.5.3.1.E - SEDIMENT REMOVAL FROM CONTROLS.

Sediment should be routinely removed from controls and must be removed when design capacity has been reduced by 50%.

3.5.3.1.F – LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER.

Litter, construction debris, and construction chemicals exposed to stormwater shall be picked up prior to anticipated storm events or before being carried off of the site by wind, or otherwise prevented from becoming a pollutant source for stormwater discharges. After use, materials used for erosions prevention and sediment control (such as silt fence) should be removed or otherwise prevented from becoming a pollutant source for stormwater discharges.

3.5.3.1.G - ERODIBLE MATERIAL STORAGE AREAS.

Including but not limited to overburden and stockpiles of soil etc. and borrow pits used primarily for the permitted project referenced in the construction site plans. TDOT projects shall be addressed in the Waste and Borrow Manual per the Statewide Stormwater Management Plan (SSWMP).

3.5.3.1.H - PRE-CONSTRUCTION VEGETATION.

Pre-construction vegetation ground cover shall not be destroyed, removed or disturbed more than 15 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.

3.5.3.1.I - CLEARING AND GRUBBING.

Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent possible.

3.5.3.1.J - CONSTRUCTION SEQUENCING.

Construction must be sequenced to minimize the exposure time of graded or denuded areas.

3.5.3.1.K - FOR PROJECTS WITH MORE THAN 50 ACRES OF DISTURBANCE, CONSTRUCTION PHASES MUST BE NOTED.

No phasing will be needed for this project.

3.5.3.1.L - EPSC WILL BE IMPLEMENTED BEFORE EARTH-MOVING BEGINS. REFERENCE SUBSECTION 3.5.1.A AND CONSTRUCTION SITE PLANS.

EPSC will be implemented correctly before any earth-moving begins and will be maintained throughout the construction period.

3.5.3.1.M - CONSTRUCTOIN RECORDS TO BE MAINTAINED ON OR NEAR THE SITE.

The dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, the dates when stabilization measures are initiated, inspection records, and rainfall records.

3.5.3.1.N - CONSTRUCTION ACCESS.

A construction entrance/exit has been shown on the construction site plan and a detail has been provided, to help minimize the tracking of sediment and the generation of dust. Heavy-duty equipment including dump trucks, concrete trucks, semi trailers, and all supply trucks shall access the project site off of Alley No. 225. Any paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site.

3.5.3.1.0 – RAIN GAUGE.

Permittees shall maintain a rain gauge and daily rainfall records at the site or use a reference site for a record of daily amount of precipitation.

3.5.3.2 - STABILIZATION PRACTICES.

Temporary Stabilization - Denuded areas, soil stockpiles, dikes, dams, channels, etc. are to be seeded and mulched. Areas and time of exposure of unprotected soils shall be kept to a maximum of 14 days. Slopes greater than 35% must be stabilized within seven days. Such areas are to immediately receive seed and mulch stabilization following this time period. On steep slopes and channels, sod shall be fastened to the ground with wire staples or wood pegs. Where surface water cannot be diverted from flowing over the face of slopes, install a strip of heavy jute or plastic netting and fasten tight along the crown or top of the slope for extra protection against lifting and undercutting of sod. Suitable barricades and guards shall be erected to prevent equipment or material from being placed on any planted area. Plastic lining shall be used on all ditches and exposed surfaces when time does not permit the Contractor to use seed and mulch for stabilization.

Permanent Stabilization - Slope and ditches that are constructed to final subgrade or a portion of

any slope or ditch that is constructed to subgrade shall immediately receive topsoil and final stabilization. All slopes are to receive seed and mulch. All ditches shall receive stabilization as indicated on the construction plans. The Contractor shall be responsible for watering seeded areas to prevent the soil from drying out until approved and accepted. The Contractor shall be responsible for reseeding bare spots for a period of one year after installation or acceptance of the project.

3.5.3.3 - STRUCTURAL PRACTICES.

All EPSC measures have been designed to handle runoff from the 2-yr, 24-hr storm event. If the site is draining to an impaired drainage, then the 5-yr, 24-hr storm event was used.

Acreage of each outfall's drainage area has been shown on the construction site plans.

3.5.4 - STORMWATER MANAGEMENT - VELOCITY DISSAPATION DEVICES IDENTIFIED TO CONTROL POLLUTION

Velocity dissipation devices are provided at all outfall structures and along the length of any outfall channel and are shown on the construction site plans. Technical basis used to select velocity dissipation devices where flows exceed predevelopment levels has been provided in the construction site plans.

3.5.5 - OTHER ITEMS POTENTIALLY ONSITE NEEDING CONTROL.

Please reference subsection titled "OTHER CONTROLS" in this SWPPP documentation.

3.5.6 – APPROVED LOCAL GOVERNMENT SEDIMENT AND EROSIONS CONTROL REQUIREMENTS.

Permittees must comply with any additional erosion prevention, sediment controls, and stormwater management measures required by a local municipality or permitted MS4 program.

3.5.7 - MAINTENANCE.

Reference subsection 3.5.8.2.

3.5.8.2 - EPSC SCHEDULE OF INSPECTIONS AND MAINTENANCE

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- The TDEC routine inspection form must be used when performing inspections. A copy of the inspection form is located in Appendix B of this SWPPP.
- All EPSC control measures and outfalls will be inspected twice each calendar week and at least 72 hours apart.
- All measures will be maintained in good working order; if a repair is necessary, it will be

- initiated within 24 hours of report.
- The construction entrance/exit will be maintained in a condition that will prevent tracking or flow of material onto public right-of-way, including periodic top dressing with fresh stone, repair and/or cleanout of any structures to trap sediment.
- Built up sediment will be removed from silt fencing when it has reached one-third the height of the fence.
- Silt fencing will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Sediment will be removed from the street inlet protection devices when the sediment depth exceeds one-half the barrier depth.
- Sediment will be removed from the curb inlet protection devices when the sediment depth exceeds one-half the barrier depth.
- Riprap outlet structures will be inspected after heavy rains. If any erosion around or below
 the riprap has taken place or if stones have been dislodged repairs will be made immediately
 to prevent further damage.
- Sediment will be removed from the detention pond(s), sediment basin(s), and sediment trap(s) when the storage zones are one-third full or when re-suspension is apparent.
- Sediment will be removed from stone filter rings before the sediment reaches a depth of one-half the original height.
- Some removed sediment may contain contaminants of which the Tennessee Department of Environment & Conservation (TDEC) requires special disposal procedures. TDEC, Division of Water Pollution Control can be reached at (615) 532-0625.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
- The site superintendent will select an individual who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- Vegetation, EPSCs, and other protective measures are repaired, replaced, or modified within 7 days.

3.5.9 – POLLUTION PREVENTION MEASURES FOR NON-STORMWATER DISCHARGES.

Sources of non-stormwater listed in subsection 1.2.3 that are combined with discharges associated with the construction activity are to be identified in this documentation. Any non-stormwater must be discharged through stable discharge structures.

3.5.10 – DOCUMENTATION OF PERMIT ELEGIBILTY RELATED TO TOTAL MAXIMUM DAILY LOADS (TDML).

Appropriate details are included for dewatering practices which are subject to all inspection and maintenance requirements within this document.

4.1.2 - BUFFER ZONE REQUIREMENTS - 30' RIPARIAN BUFFERS

If the site is adjacent to jurisdictional Waters of The State, then a required natural riparian 30' buffer zone will be provided and shown on plans along all streams, lakes and wetlands on or adjacent to the construction site. The 30-feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location.

4.1.6 - PROHIBITED DISCHARGES

The following discharges are prohibited:

- Wastewater from washout of concrete, unless managed by an appropriate control.
- Wastewater from washout and cleanout of stucco, paint, from release oils, curing compounds and other construction materials.
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
- Soaps or solvents used in vehicle and equipment washing.

4.1.7 – SURFACE OUTLETS

When discharging from basins and impoundments, utilize outlet structures that only withdraw water from near the surface of the basin or impoundment, unless infeasible.

5.4.1.A - DISCHARGES INTO IMPAIRED OR EXCEPTIONAL TENNESSEE WATERS. DESIGN STORM IF DRAINING TO AN IMPAIRED STREAM

If the construction site drains into an impaired stream, then the 5-yr, 24-hr design storm will be used for site design and proposed ESPCs.

5.4.1.F - DISCHARGES INTO IMPAIRED OR EXCEPTIONAL TENNESSEE WATERS. OUTFALL WITH DRAINAGE AREA OF 5 OR MORE ACRES DRAINING TO AN IMPAIRED STEAM

If an outfall is draining to an impaired stream, then a sediment basin will be provided if the outfall is draining 5 or more acres.

5.4.2- IMPAIRED STREAMS BUFFER ZONE REQUIREMENTS - 60' RIPARIAN BUFFERS

If the site is adjacent to jurisdictional Waters of The State, then a required natural riparian 60' buffer zone will be provided and shown on plans along all streams, lakes and wetlands on or adjacent to the construction site. The 60-feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location. Every attempt should be made for construction activities not to take place within the buffer zone.

OTHER CONTROLS

Waste Disposal:

Waste Materials - All construction waste and trash generated by the Contractor and his Subcontractors shall be collected and stored in a securely lidded metal dumpster approved by the Metro Nashville and meeting all local and State Solid Waste Management regulations. Waste material shall be defined as unwanted materials left over from a manufacturing or other man-made process. Such debris shall be cleaned up after each specific job has been completed and at the end of each workweek, whichever comes first. No construction waste materials shall be buried on any property. Any waste material excavated from past construction or demolition shall be disposed of in the same manner, after the Engineer has approved the material for disposal. Such dumpsters shall be emptied a minimum of once each week or more if necessary, and the trash will be hauled to the local landfill. The Contractor and the Owner's representative shall manage and be responsible for seeing that these procedures are followed.

Hazardous Waste - All hazardous waste materials shall be disposed of as per the Metro Nashville regulations or by the manufacturer's specifications. Any hazardous waste must remain in a sealed container and removed from the site by the end of the workday. The Contractor and the Owner's representative shall manage and be responsible for seeing that these procedures are followed.

Sanitary Waste - All sanitary waste will be collected from portable units a minimum of three times per week by a licensed sanitary waste management contractor.

Offsite Vehicle Tracking:

Heavy-duty equipment including dump trucks, concrete trucks, semi trailers, and all supply trucks shall access the project site off of Alley No. 225. Any paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site.

INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present on-site during construction:

- Concrete
- Paints and Silicones
- Bituminous Materials
- Explosives
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Straw Mulch
- Masonry Block
- Plastics and Fabrics

SPILL PREVENTION

Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

- An effort will be made to store only enough product required to do the job.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The site superintendent will inspect daily to ensure proper use and disposal of materials on site.

Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not re-sealable.
- Original labels and material safety data will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

Product Specific Practices

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

Concrete Trucks and Paving Equipment:

Concrete trucks and paving equipment will not be allowed to wash out or discharge surplus material or drum wash water into streams or ditches. The site Superintendent will designate such locations. Spill Control Practices:

19-109/1590

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site
 personnel will be made aware of the procedures and the location of the information and
 cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to absorbent booms, spill pillows, brooms, dustpans, mops, rags, gloves, goggles, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate local and State government agency, regardless of the size.
- Measures will be implemented to prevent this type of spill from reoccurring and how to clean
 up the spill if there is another one. A description of the spill, what caused it, and the clean up
 measures will also be included.
- The site Superintendent responsible for the day-to-day site operations will be the spill prevention and clean-up coordinator. He will designate at least three other site personnel who will receive spill prevention and clean up training. These individuals will each become responsible for a particular phase of prevention and clean up. The names of responsible spill personnel will be posted in the material storage area and in the office trailer on site.

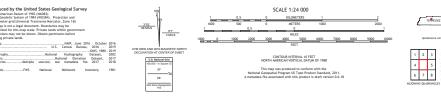
POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

including the p	ossibility of fifte art	u imprisoriment for knowing violat	10115.
Signed:	Todd EV	Vii	
Printed:	Todd Wilso	on	
Date:	9.24.2020		
	C	CONTRACTOR'S CERTIFICATION	N
Pollutant Disch	narge Elimination S	I understand the terms and condit system (NPDES) permit that author from the construction site identifie	orizes the storm water discharges
Signature	,	For	Responsible For
Signed:			
Printed:			
Date:			

Appendix A USGS LOCATION MAP







Appendix D SITE / EPSC PLANS

DESIGN DOCUMENTS

1111 CHURCH STREET RESIDENCES

DOWNTOWN NASHVILLE | DAVIDSON COUNTY | TENNESSEE

CONTACTS

DEVELOPER

TODD L. WILSON 250 WEST 27TH ST, SUITE 403 NEW YORK, NY 10001 (646)630-0236 twilson@flankonline.com

ARCHITECTURE LEE DAVIS

1033 DEMONBREUN ST, SUITE 800 NASHVILLE. TN 37203 (615) 329-9445 leed@esarch.com

JOSH HUNTER

RAGAN SMITH & ASSOCIATES, INC. 315 WOODLAND STREET NASHVILLE, TN 37206 (615) 244-8591 jhunter@ragansmith.com

SITE DATA

DISTRICT COUNCIL MEMBER:

PROPERTY INFORMATION

STREET ADDRESS: 1111 CHURCH ST PROPERTY OWNER: PARCEL ACREAGE: 1.51 AC (65,629 SF) 09309008000, 09309008100, 09309008200, PARCEL ID: 09305012500, 09305012600 COUNCIL DISTRICT NUMBER:

FREDDIE O'CONNELL

PROJECT INFORMATION

PROPOSED USE: Residential (380 Units) **Retail** (4 Units) (58,787 S.F. Total)

(DTC) PARKING REQUIRED: PARKING PROVIDED: 478 (Within garage)

REQUIRED BICYCLE PARKING: 50 spaces for Residential ± 12 spaces per Retail ± 62 Spaces

ZONING INFORMATION

ZONING CLASSIFICATION: **DTC** (Downtown Code) DTC SUBDISTRICT: **GULCH SOUTH** T6-DC (Downtown Core) COMM. CHARACTER AREA:

FRONTAGE TYPE WITH REQUIRED BUILD-TO ZONE:

Church Street (Primary): **0'-10'** provided (0'-10' required) **0'-10'** provided (0'-10' required) 12th Ave (Secondary): **0'-10'** provided (0'-10' required) Grundy St. (Tertiary):

FACADE WIDTH:

Church Street (Primary): 100% provided (80% required) 12th Ave (Secondary) **100%** provided (80% required) Grundy St. (Tertiary): **100%** provided (60% required) Activation of Comer's Alley Additional:

MINIMUM BUILDING DEPTH:

Required: 15' from building facade Provided: 15' from building facade

MAX HEIGHT:

Required Church Street: 15 stories Subdistrict General: 10 stories

Bonus Height

Church Street: +6 stories (21 total) Subdistrict General: +6 stories (16 total)

Church Street: Subdistrict General:

Provided

Bonus Height 48,000 s.f. of underground parking (+2 stories) 48,000 s.f. of public parking (+2 stories) Public Parks: Pervious Surface: 17,000 s.f. of pervious surface and green roof (+2 stories)

21 stories (measured from upper Church Street**)

STEP-BACK:

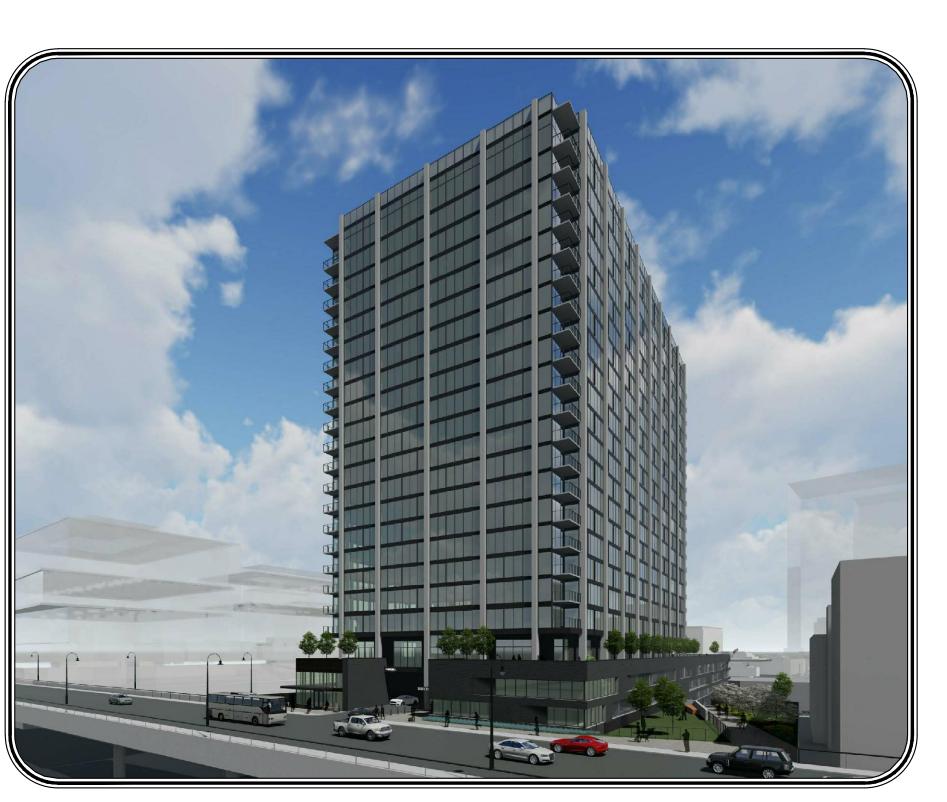
Between 4th & 8th stories Required: 2nd story (from upper Church Street**) Provided:

MIN STEP-BACK DEPTH:

Required: Provided:

4' grass strip + 10' sidewalk 4' grass strip + 8' sidewalk Grundy: 12' sidewalk Church:

**DTC MODIFICATION REQUESTED



RENDERING NOT TO SCALE

C8.2 TDOT DETAILS

IND	DEX OF SHEETS	05.15.	08.07	09.04	10.07.
C0.1	CIVIL NOTES AND DETAILS FOR EXCAVATION				
C0.2	EXISTING CONDITIONS				
C1.1	INITIAL EROSION CONTROL & DEMOLITION PLAN				
C2.1	EXCAVATION GRADING, DRAINAGE, & INTERIM EROSION CONTROL				
C3.1	PLAN	_=	-	-	_
C4.1	CIVIL NOTES FOR SITE WORK	_	_	_	-
C4.2	SITE LAYOUT PLAN	_=	_=	_=	-
C5.1	TRUCK MOVEMENT PLAN	-	-	-	-
C5.2	SITE GRADING AND DRAINAGE PLAN				
C6.1	PUBLIC STORM DRAINAGE PLAN & PROFILE	_=	-	_	-
C6.2	SITE UTILITY PLAN	-	-	-	-=
C7.1	SANITARY SEWER PLAN & PROFILE	-	-	-	-
C7.2	NES PLAN & PROFILE	_=	_	_	-
C7.3	NES PLAN & PROFILE		_		-
C8.1	CIVIL DETAILS				

BUILDING PERMIT#: SWGR PERMIT#: MWS#: MWS#: UTILITY PERMIT#:

XXXX T2020049599 20WL0113 20SL0221 2020054609

DOCUMENT CHANGES 1) INITIAL MWS SUBMITTAL 2020.08.07 3 MWS RESUBMITTAL Issue Description DESIGN DOCUMENTS MAY 15, 2020 JWH Checked By BCS

COVER SHEET

C0.0



SITE GENERAL NOTES

permits prior to beginning work.

- The contractor shall verify the location of all existing utilities in the proximity of the construction area and report any discrepancies to the owner's representative prior to beginning work.
- The contractor shall conform to all local, state and federal codes and obtain all
- The contractor shall check all finished grades and dimensions and report any discrepancies to the owner's representative prior to beginning work.
- Dimensions are to the face of curb, edge of concrete and face of building unless noted otherwise.
- Proposed building footprint is for graphic purposes only. Contractor shall use the current architectural drawings for building stakeout and verify that there are no discrepancies with these plans.
- AutoCAD file to be provided for specific coordinations.

SITE CONSTRUCTION NOTES

- The necessary permits for the work shown on these site development plans shall be obtained by the contractor prior to commencement of any work on this project. The contractor shall give all necessary notices and obtain all permits and pay all fees involved in securing said permits. He shall also comply with all city, county and state building laws, ordinances or regulations relating to the construction of the
- The contractor shall be responsible for and shall bear all expenses of field staking necessary for site and building layout. All layout shall be performed in accordance
- The location of existing piping and underground utilities, such as water and gas lines, electrical and telephone conduits, etc., as shown on this portion of the plans have been determined from the best available information by actual surveys, or taken from the records and drawings of the existing utilities. However, the civil engineer does not assume responsibility that, during construction, the possibility of utilities other than those shown may be encountered or that actual location of those shown may vary somewhat from the location designated on this portion of the plans. In areas where it is necessary that the exact locations of underground lines be known, the contractor shall, at this own expense, furnish all labor and tools to either verify and substantiate or definitively establish the location of the lines.
- The contractor must understand that the work is entirely at his risk until same is accepted and he will be held responsible for its safety by the owner. Therefore, the contractor shall furnish and install all necessary temporary works for the protection of the work, including barricades, warning signs, and lights.
- The site development portion of this project shall be subject to the inspection and final approval of the local planning, codes, water and sewer departments (and/or utility districts), engineering/public works departments and fire marshal's office.
- If, during the construction of the site development portion of this project, a question of intent or clarity arises from either the plans or specifications, the contractor will immediately bring the matter to the attention of the civil engineer or owner's representative for resolution before the affected work items are initiated or pursued further.
- The contractor will exercise extreme caution in the use of equipment in and around overhead and/or underground power lines. If at any time in the pursuit of this work the contractor must work in close proximity of the above-noted lines, the electric and/or telephone companies shall be contacted prior to such work and the proper safety measures taken. The contractor should make a thorough examination of the overhead lines in the project area prior to the initiation of construction.
- premises, or injuries to the public during the construction of the work, caused by himself, his subcontractors, or the carelessness of any of his employees. Elevation of the curb and gutter is the responsibility of the contractor but once in

The contractor shall be responsible for any damage done to the premises or adjacent

- place must function as designed. Curb and gutter installed will be tested to verify flow to the storm drain system. No pooling of drainage in the roadway will be O. All of the public sidewalk along the roadway must follow the grade of the roadway
- and will not be adjusted to meet private sidewalk connections. The adjustments must be made out of the right of way.

SITE GRADING NOTES

- Erosion control sediment barriers and tree protection barrier shall be installed prior beginning site work
- No heavy equipment shall cross or be stored outside the limits of construction, within tree protections zones, or under the drip line of existing trees to remain.
- Topsoil stripped from areas to be graded shall be stockpiled on site in a location approved by the owner's representative. Drainage shall be routed around stockpile locations for the duration of grading operations. Erosion control measures shall be installed to prevent loss of topsoil material.
- Prior to beginning construction, contractor shall review Geotechnical Report. All cut and fill shall be performed under the direction/observation of the geotechnical engineer.
- The suitability of soils for fill material shall be determined by the geotechnical
- Unless directed otherwise by geotechnical engineer, all fill areas shall be raised in lifts not exceeding 8" in thickness. The relative compaction of each layer shall not be less than 95% of the standard proctor maximum dry density (ASTM D-698) in all areas of fill within open areas and 98% of same specification for areas under roads, parking, sidewalks, building slabs, and foundations.
- All grading shall be completed to the grades indicated within these plans. Final grades shall provide proper drainage and prevent standing water.

DEMOLITION NOTES

- The contractor will be required to remove all excavated materials and such items shall become the property of the contractor. All items shall be properly disposed of at an off-site location. The contractor shall outline any and all possible haul routes and shall be prepared to submit such to the local jurisdiction public works department, the civil engineer and other authorities for approval.
- If, at any time, prior to or during the demolition work, hazardous material is encountered, the contractor shall notify the owner's representative and appropriate governmental agency.
- The contractor shall notify adjacent owners of work that may affect their property, potential noise, utility outage or disruption. Such operations shall be conducted by the contractor with minimum interference to adjacent owners. Adjacent egress and access shall be properly maintained at all times. Do not close or obstruct any roadways, parking or sidewalks without permission from the adjacent owners or the local jurisdiction public works department.
- Prior to the commencement of demolition/grading operations, all overhead and underground utilities shall be located. All removal and/or relocation of utilities shall be coordinated with the respective utility companies.
- The contractor will provide all necessary protective measures to safeguard existing utilities from damage during construction of this project. In the event that special equipment is required to work over or around the utilities, the contractor will be required to furnish such equipment at no additional cost to
- The contractor will be solely responsible for contacting all affected utilities prior to submitting his bid to determine the extent to which utility disconnections and/or adjustments will have upon the schedule of the work for the project. Some utility facilities may need to be adjusted concurrently with the contractor's operations, while some work may be required 'around' utility facilities that will remain in place. It is understood and agreed that the contractor will receive no additional compensation for delays or inconvenience caused by the utility adjustment.

EROSION PREVENTION

& SEDIMENT CONTROLS

- Design, inspection, and maintenance of BMPs described and shown on these plans shall be consistent or exceed recommendations contained in the current edition of TDEC's Tennessee Erosion Control Handbook.
- 1. All control measures must be properly installed and maintained in accordance
- with the manufacturer's specifications, TDEC and local standards. 2. BMP capacity [sediment traps, silt fences, sedimentation ponds, and other sediment control] shall not be reduced by more than 50% at any given time. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the contractor must replace or modify the control for relevant site situations.
- 3. Where permanent or temporary vegetation cover is used as a control measure, the timing of the planting is critical. Planning for planting of vegetation cover during winter or dry months should be avoided.
- 4. If sediment escapes the permitted area, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. The contractor shall not initiate remediation/restoration of a stream without consulting the division first. The NOI general permit does not authorize access to private property. Arrangements concerning removal of sediment on adjoining property must be settled by the contractor and adjoining
- 5. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events or before being carried off of the site by wind or otherwise prevented from becoming a pollutant source for storm water discharges. After use, materials used for EPSC should be removed or otherwise prevented from becoming a pollutant source for storm water
- 6. Erodible material storage areas (including overburden and stockpiles of soil) and borrow pits are considered part of the site and should be addressed with appropriate BMP's accordingly.
- Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 15 days prior to grading or earth moving unless the area is stabilized. Contractor shall sequence events to minimize the exposure time of graded or denuded areas. Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent practicable.
- 8. EPSC measures must be in place and functional before moving operations begin and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workaday, but must be replaced at the end of the workday.
- 9. The following records shall be maintained on or near site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease or a portion of the site; the dates when stabilization measures are initiated; inspection records and rainfall records. Contractor shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.
- 10. A copy of the SWPPP shall be retained on-site and should be accessible to the director and the public. Once site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located off-site, reasonable local access to the plan, during normal working hours, must be
- 11. Off-site vehicle tracking of sediments and the generation of dust shall be minimized. A stabilized construction access (a point of entrance/exit to a construction site) shall be constructed as needed to reduce the tracking of mud and dirt onto public roads by construction vehicles.
- 12. Inspections must be performed at least twice every calendar week. Inspections shall be performed at least 72 hours apart. Where sites or portions of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions or due to extreme drought, such inspection has to be conducted once per month until thawing or precipitation results in runoff or construction activities resumes. Inspection requirement do not apply to definable areas that have been finally stabilized, as designed by the engineer. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the local environmental field office, or the division's Nashville central office for projects of TDOT or TVA. Should the division discover that monthly inspection of the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspections shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly
- 13. Inspectors performing the required twice weekly inspections must have an active certification and a record of certification must be kept on site. Based on the results of the inspection, any inadequate control measures or control measures in despair shall be replaced or modified, or repaired as necessary, before the next rain event, but in no case more than 7 days after the need identified.
- 14. Outfall points shall be inspected to determine whether EPSC measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- 15. Construction is expected to begin May 1, 2018 and be completed by May 1, 2019.

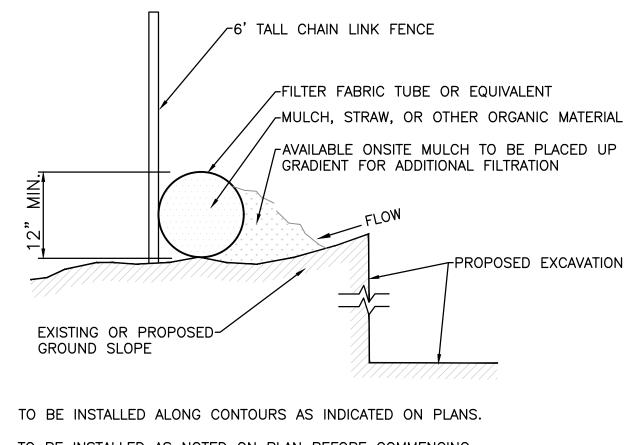
BLASTING NOTES

- 1. Contractor shall provide all labor, materials, equipment, tools, superintendence, transportation, services and operations to complete the blasting operation.
- 2. All blasting shall be done in accordance with the Tennessee blasting standards act of 1975, metropolitan Nashville and any other federal state or local laws governing blasting.
- 3. The contractor shall have a registration certificate and each employee engaged in the blasting activity shall carry a valid identification card issued by the division of fire protection.
- 4. The contractor shall permit only authorized and qualified persons to handle and
- 5. All explosives shall be accounted for at all times with the blaster responsible for maintaining a daily log. Explosives not being used shall be kept in a locked magazine unavailable to persons not authorized to handle them. The contractor shall maintain an inventory and use record of all explosives. Appropriate authorities shall be notified of any loss, theft or unauthorized entry into a magazine. All explosives and related materials shall be stored in approved magazines. Blasting caps shall not be stored in the same magazine with other explosives or blasting agents.
- 6. Original containers or approved magazines shall be used for taking detonators and other explosives from storage area to the blasting area. Delivery and use of explosives shall only be made by and to authorized persons into approved
- 7. Contractor shall use every reasonable precaution, including, but not limited to, visual and audible warning signals, flags or barricades to ensure employee and
- 8. Due precaution shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent power lines, dust storms, or other sources of extraneous electricity, these precautions shall include the prominent display of adequate signs on roads within 1000 feet of blasting operations warning against the use of mobile radio transmitters.
- 9. Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the utility operators and/or owners have been notified and safe control measures have been taken.
- 10. The use of black powder shall be prohibited.
- 11. All blasts shall be fired electrically with on-electrical blasting machine or properly designed electric power source.
- 12. All drill holes shall be sufficiently large to admit freely the insertion of the cartridges of explosives. Tamping shall be done only with wood rods or plastic tamping poles without exposed metal parts.
- 13. No holes shall be loaded except those to be fired in the next round of blasting after loading, all remaining explosives and detonators shall be immediately returned to an authorized magazine.
- 14. No loaded holes shall be left unattended or unprotected

- 15. Immediately after blasting, the firing line shall be disconnected from the blasting machine. An inspection of the area shall be made by the blaster to determine if all charges have been exploded before employees are allowed to return to the area or to resume. If a misfire is found, no other work shall be done except that necessary to remove the hazard of the misfire.
- 16. No explosive or blasting agents shall be left unattended at the blast site.
- 17. All blasting operations shall take place between sun-up and sun-down (hours of
- 18. All blasting shall be designed to prevent flying rock. The contractor shall use adequate, good quality stemming material and the covering of blasts with steel or rubber blasting mats or an adequate dirt cover will be required.
- 19. The contractor, at his own expense, may opt to have pre-blast surveys performed on any adjacent structures. These surveys shall be performed by a consultant

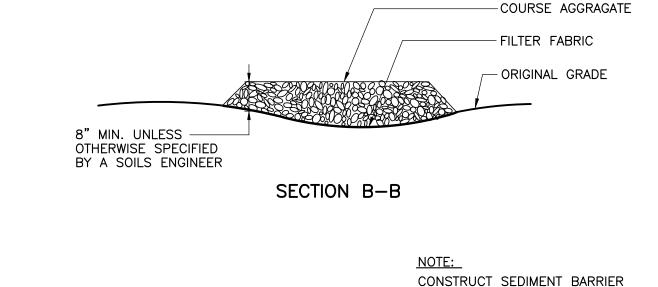
experienced in this area.

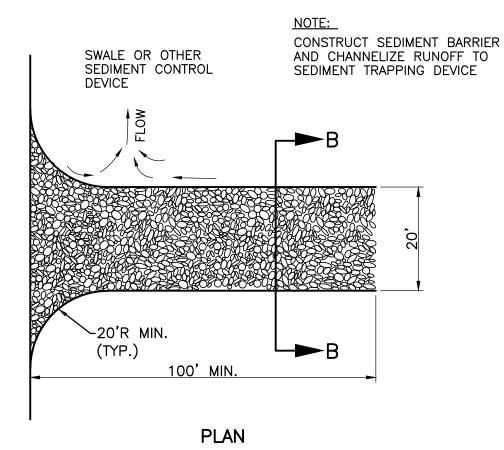
- 20. The contractor hereby assumes sole responsibility for all personal injury or damage to real or personal property, or interference with the use or enjoyment of any property by reason of blasting or the resulting vibration or concussion. The contractor assumes full responsibility for operating all equipment and performing all blasting in conformance with federal, state or local laws and regulations described by any other governmental authority limiting the amount of vibration or concussion. Nothing presented in any of the preceding in any way relieves the contractor of any responsibilities for any damage to the existing structures or utilities in the area of blasting.
- 21. No blasting to be done within 25' of finished water or sewer line.
- 22. Use all precautions to protect adjacent properties from danger from operations.



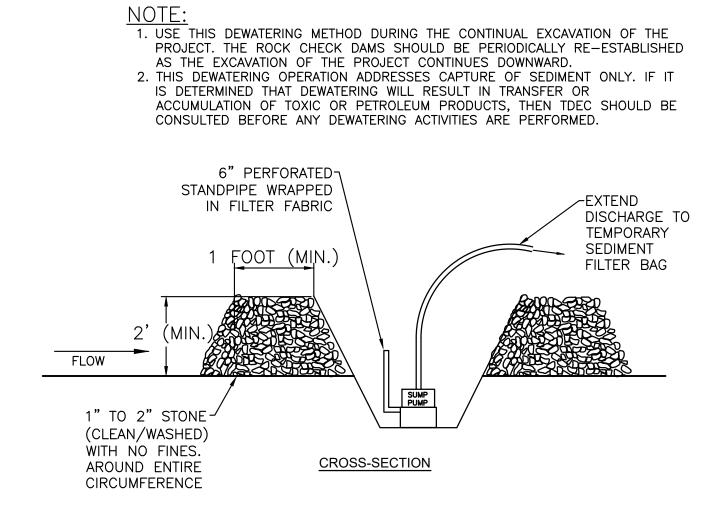
TO BE INSTALLED AS NOTED ON PLAN BEFORE COMMENCING GRADING OPERATION AND LEFT IN PLACE UNTIL A GOOD STAND OF GRASS IS ESTABLISHED OVER ALL DISTURBED AREAS.

WEIGHTED EROSION/SILTATION TUBE (TCP-14) TEMPORARY SUMP - PLAN VIEW (CP-02)





STABILIZED CONSTRUCTION ENTRANCE (TCP-03) NOT TO SCALE



NOT TO SCALE

TEMPORARY SUMP AREA DEWATERING PIT (CP-02)

BUILDING PERMIT#: SWGR PERMIT#: UTILITY PERMIT#:

MWS#:

MWS#:

XXXX T2020049599 20WL0113 20SL0221 2020054609



DISCHARGE PIPE FROM SUMP

PUMP (INSTALL FILTER SOCK

ON END OF DISCHARGE PIPE

TO REMOVE SEDIMENTS.

CLEAN AS NEEDED)

SUMP AREA

~ROCK CHECK DAM

COUNTY,

DAVIDSON

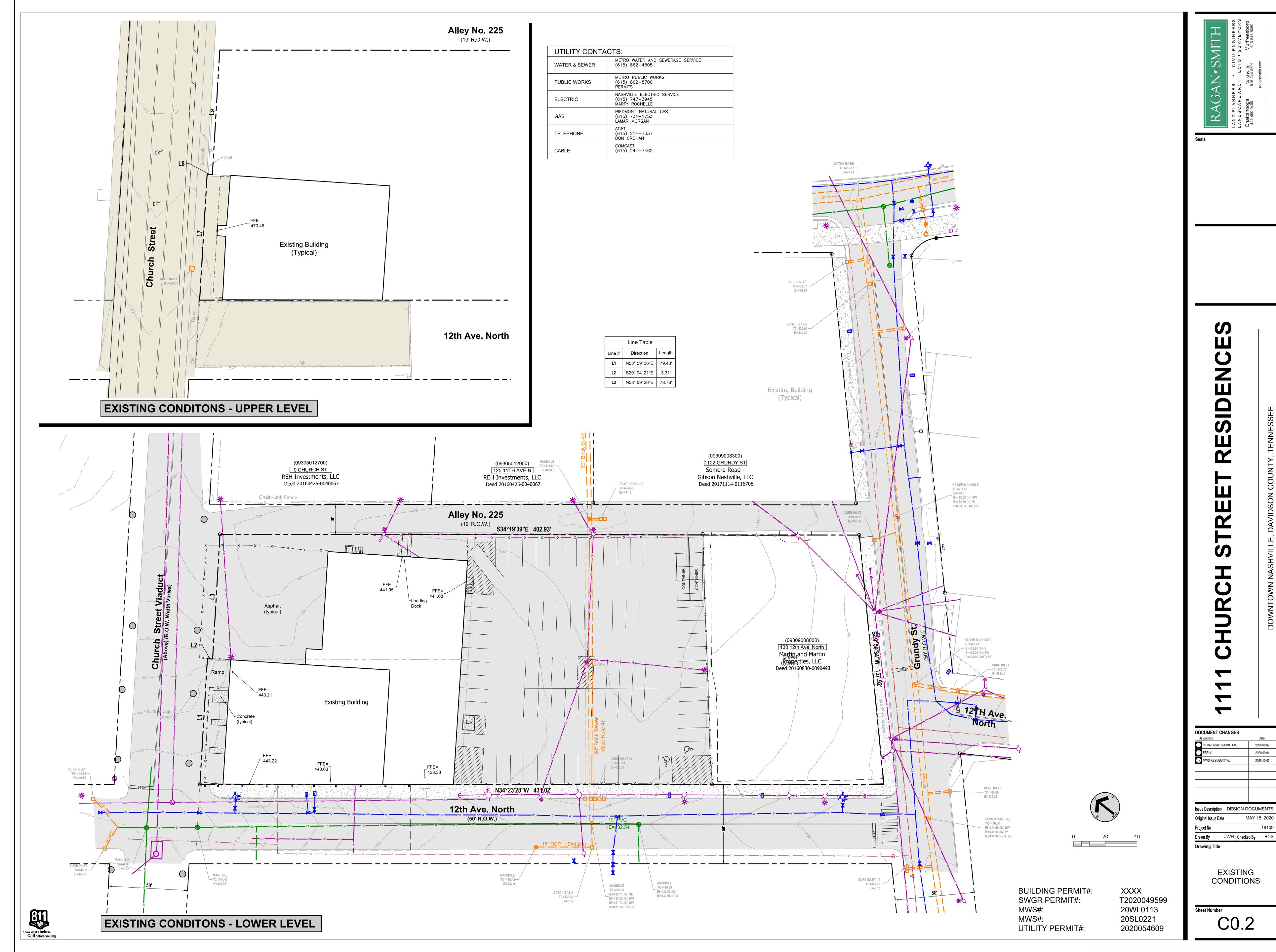
DOCUMENT CHANGES 1) INITIAL MWS SUBMITTAL 2020.08.07 2020.09.04 3 MWS RESUBMITTAL 2020.10.07 Issue Description DESIGN DOCUMENTS Original Issue Date MAY 15, 2020

CIVIL NOTES AND **DETAILS FOR**

EXCAVATION

JWH Checked By BCS

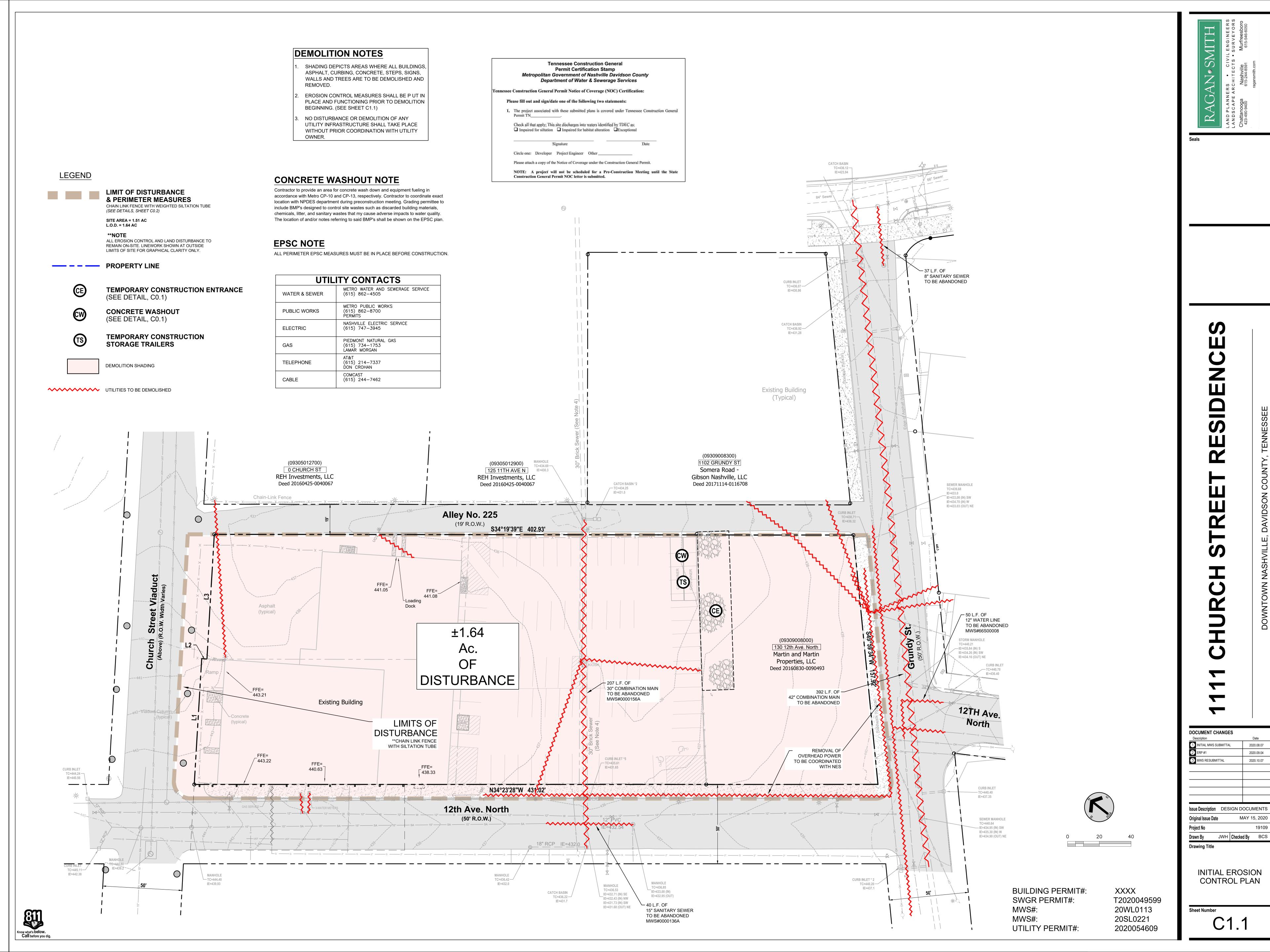
Know what's below.
Call before you dig.



MAY 15, 2020

JWH Checked By BCS

C0.2



MAY 15, 2020

JWH Checked By BCS

C1.1

DOCUMENT CHANGES 1) INITIAL MWS SUBMITTAL 2020.09.04 3 MWS RESUBMITTAL

Issue Description DESIGN DOCUMENTS Original Issue Date MAY 15, 2020 **Project No**

JWH Checked By BCS Drawn By **Drawing Title EXCAVATION** GRADING,

UTILITY PERMIT#:

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T2020049599

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20SL0221

DRAINAGE, AND INTERIM EROSION CONTROL PLAN

Sheet Number

EXCAVATION FFE NOTE

ALL GRADES SHOWN REPRESENT FINISHED GRADE ELEVATIONS AND DO NOT FACTOR IN SLAB THICKNESS OR ANY ADDITIONAL OVER-EX BELOW THE FINISHED SURFACE.

LEGEND

LIMIT OF DISTURBANCE & PERIMETER MEASURES CHAIN LINK FENCE WITH WEIGHTED SILTATION TUBE (SEE DETAILS, SHEET C0.2)

SITE AREA = 1.51 AC L.O.D. = 1.64 AC

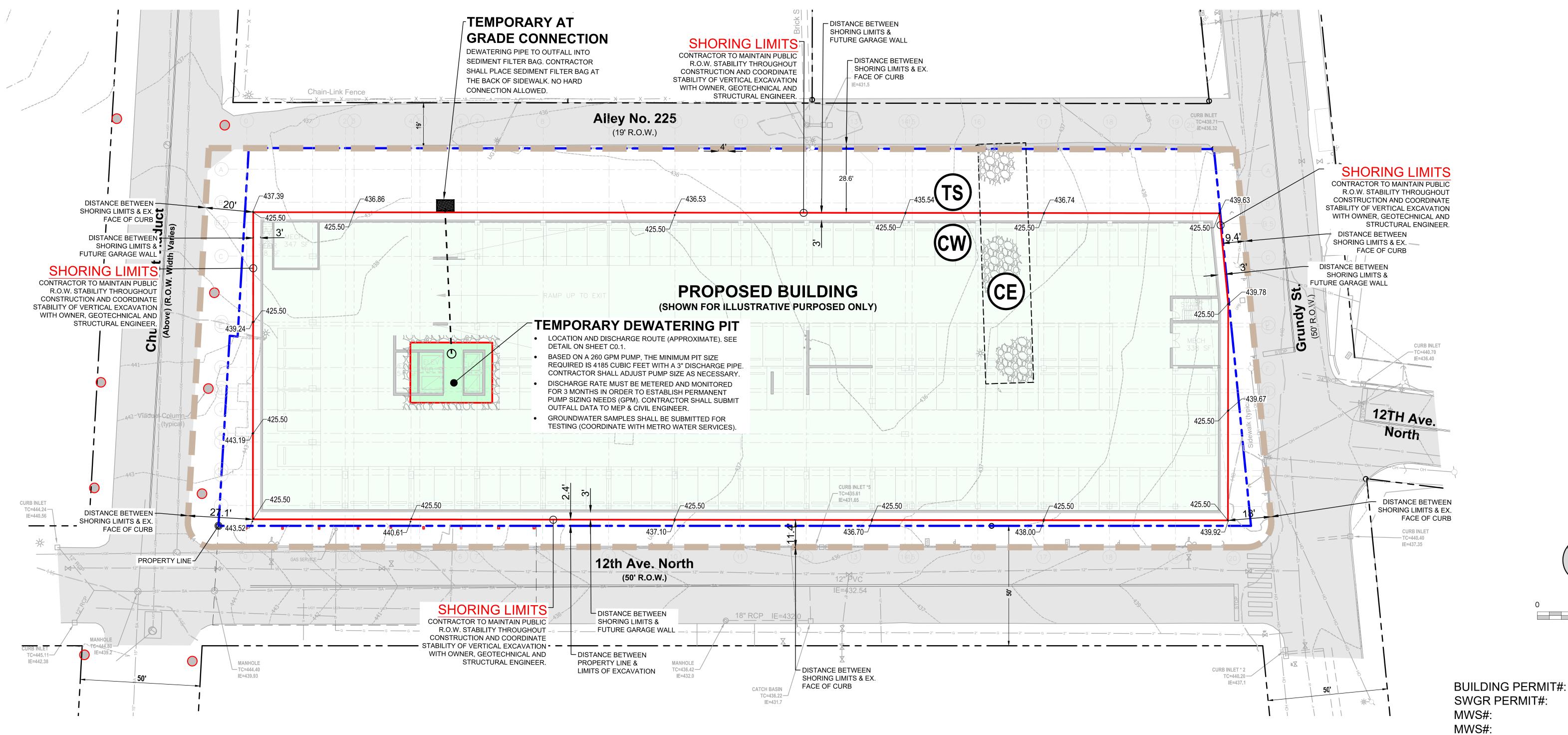
**NOTE ALL EROSION CONTROL AND LAND DISTURBANCE TO REMAIN ON-SITE. LINEWORK SHOWN AT OUTSIDE LIMITS OF SITE FOR GRAPHICAL CLARITY ONLY.

— – – PROPERTY LINE **SHORING LIMITS**

CONSTRUCTION EXIT

CONCRETE WASHOUT

TEMPORARY CONSTRUCTION STORAGE TRAILERS



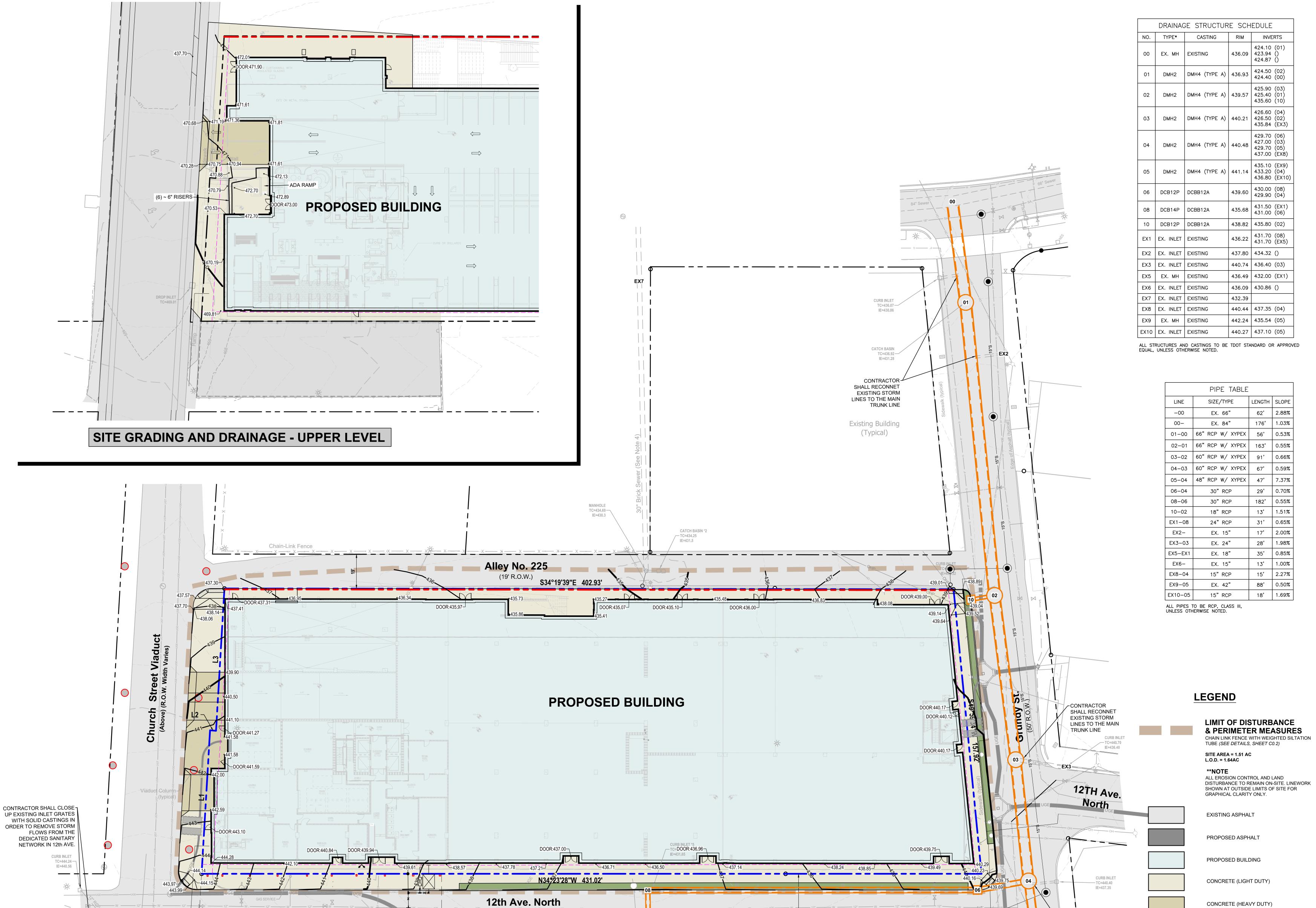
Know what's below.
Call before you dig.

TC=445.11 IE=442.38

Know what's below.
Call before you dig.

TC=444.40 IE=439.93

SITE GRADING AND DRAINAGE - LOWER LEVEL



(50' R.O.W.)

MANHOLE TC=436.42—/ IE=432.0

CATCH BASIN TC=436.22—/ IE=431.7 **DOCUMENT CHANGES** 1) INITIAL MWS SUBMITTAL 3 MWS RESUBMITTAL Issue Description DESIGN DOCUMENTS Original Issue Date MAY 15, 2020 Project No JWH Checked By BCS

Drawing Title

GREEN/FURNISHING ZONE

RIGHT-OF-WAY DEDICATION

XXXX

T2020049599

20WL0113

20SL0221

2020054609

BUILDING PERMIT#:

SWGR PERMIT#:

UTILITY PERMIT#:

MWS#:

MWS#:

COMBINED FLOWS

STORMWATER)

CURB INLET * 2 TC=440.20 IE=437.1

ENTER THE SYSTEM HERE (SANITARY &

> SITE GRADING AND DRAINAGE PLAN

Sheet Number

C5.1

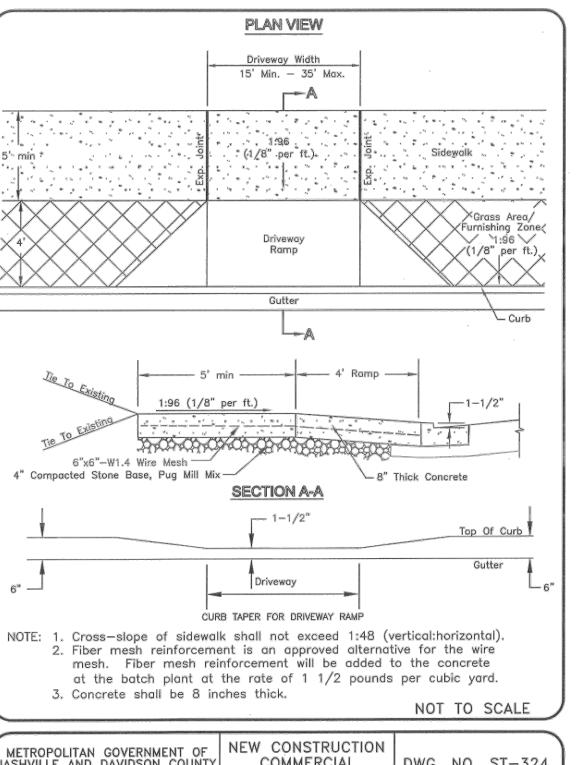


DOCUMENT CHANGES 1) INITIAL MWS SUBMITTAL 2020.08.07 2020.09.04 3 MWS RESUBMITTAL 2020.10.07 Issue Description DESIGN DOCUMENTS MAY 15, 2020 **Original Issue Date** Project No

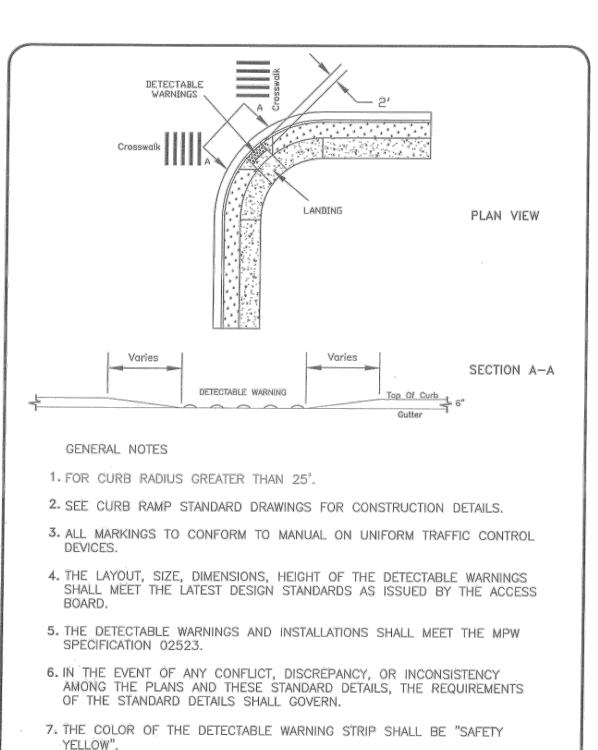
19109 JWH Checked By BCS Drawn By Drawing Title

CIVIL DETAILS

Sheet Number C8.1



			МОТ	ТО	SCALE	J
METROPOLITAN GO NASHVILLE AND DA DEPARTMENT OF F	VIDSON COUNTY!	NEW CONSTRUCTION COMMERCIAL DRIVEWAY RAMP	DWG.	NO.	ST-324	+
DIR. OF ENG.:	Nuch Naz	DATE: 5/12/03	REVISED: REVISED: REVISED:		7/27/02 5/08/03	



METROPOLITAN GOVERNMENT OF | DETECTABLE WARNINGS AT

HEAVY DUTY CONCRETE

VARIES, SEE PLAN

NOT TO SCALE

CLASS "A" CONCRETE (3,500 PSI)

6"x6" W1.4xW1.4 W.W.F.

- CRUSHED STONE BASE

COMPACTED SUBGRADE

CONTROL JOINT EVERY 5', EXPANSION JOINT EVERY 25'

UNLESS OTHERWISE NOTED.

- CLASS "A" CONCRETE

─ 6"X6" W1.4XW1.4 W.W.F.

CRUSHED STONE BASE

- COMPACTED SUBGRADE

CONTROL JOIN EVERY 5',

EXPANSION JOINT EVERY 25',

UNLESS OTHERWISE NOTED.

2" MIN. COVER

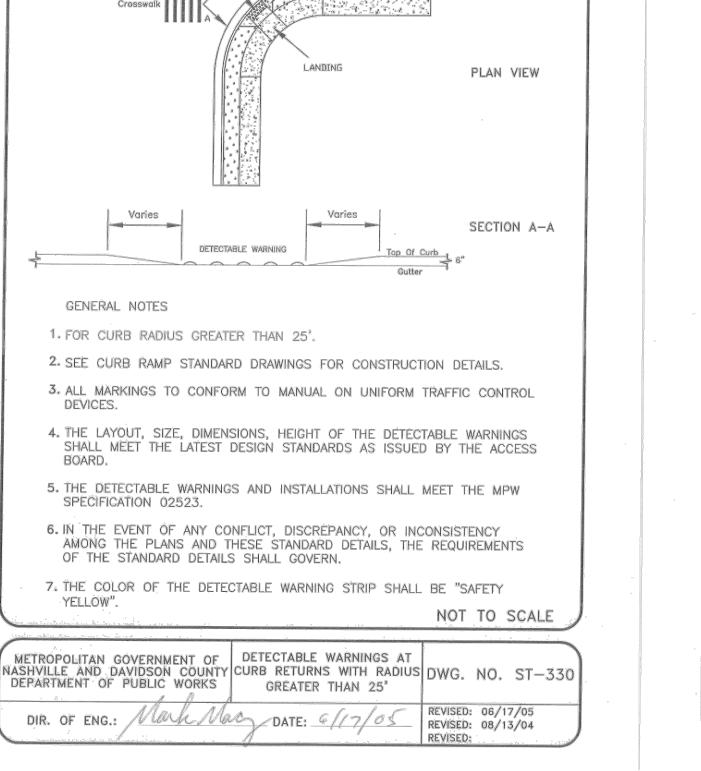
NOTE:

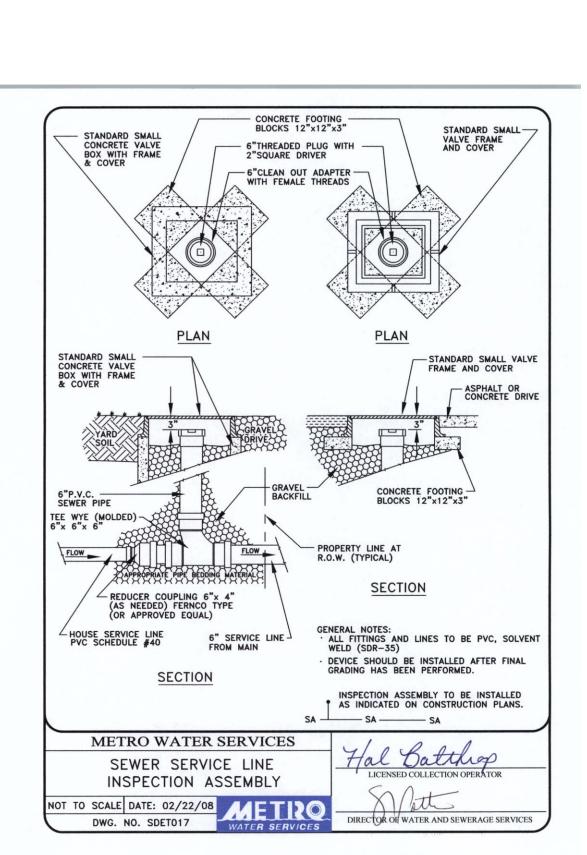
LIGHT DUTY CONCRETE

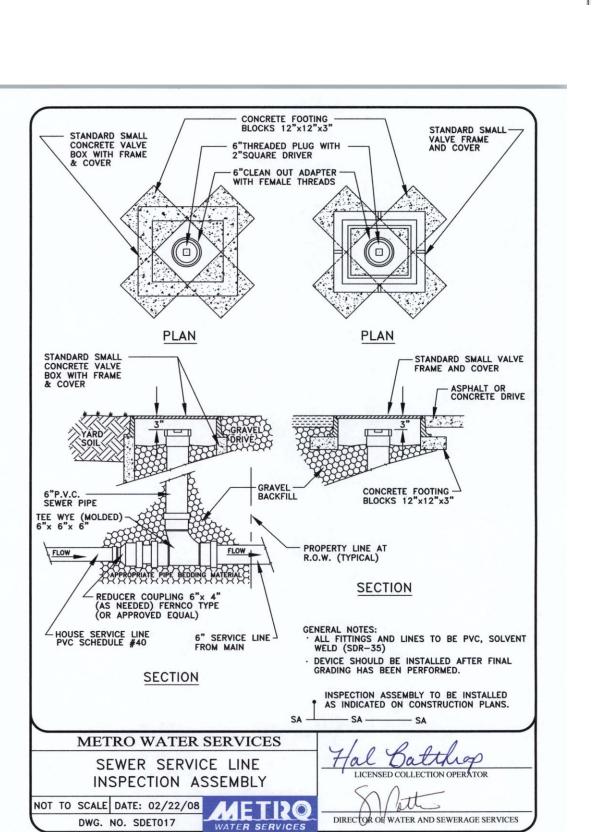
NOT TO SCALE

(3,500 PSI)-BROOM FINISH

2" MIN. COVER







SURFACE

NOT TO SCALE

05/02/03

DWG. NO. ST-200

REVISED:

TYPICAL CROSS - SECTION

FRONT VIEW

. Expansion joints to be spaced a maximum of 100 feet apart or

2. Expansion joints will also be required at tangent points, ramps,

Contraction joints are to be cut into curb and gutter every 10

4. There will be a minimum of 10 feet tie in at curb inlets on each

side of the inlet. An expansion joint will be used on each side

5. Cost of contraction joints to be included in the unit bid price for

Transverse Joint Markings-

─4' OR AS OTHERWISE APPROVED

5° SIDEWALK WITH GRASS PLOT

5' SIDEWALK BUILT TO CURB

SIDEWALK BUILT TO CURB

(WIDTH GREATER THAN 6')

MAXIMUM CROSS SLOPE FOR SIDEWALKS SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).

SIDEWALK SHALL BE CONSTRUCTED OF WHITE CONCRETE, BRICK, OR EXPOSED AGGREGATE PER METRO DEPARTMENT OF PUBLIC WORKS TECHNICAL SPECIFICATIONS, SECTION 02522.

COMPACTED STONE BASE, PUG MILL MIX, 4" THICK SHALL BE APPLIED TO SUB GRADE PRIOR TO

INSTALLING SIDEWALK.

5. FURNISHING ZONE IS AN AREA FOR OBSTRUCTIONS IN THE SIDEWALK. EXAMPLES ARE OUTDOOR CAFES, POWER POLES, FIRE HYDRANTS, SIGNS, ETC.

6. IN THE EVENT OF ANY CONFLICT, DISCREPENCY, OR INCONSISTENCY AMONG THE PLANS AND THESE STANDARD DETAILS, THE REQUIREMENTS OF THE STANDARD DETAILS SHALL GOVERN.

NTS

SIDEWALK

CONSTRUCTION

DWG. NO. ST-210

REVISED:

05/02/03

11/24/03 06/23/04

SIDEWALKS SHALL BE A MINIMUM OF 4 INCHES IN THICKNESS.

DIR. OF ENG.: MarkMary DATE: 7/15/04

METROPOLITAN GOVERNMENT OF

DEPARTMENT OF PUBLIC WORKS

STANDARD CURB

WITH GUTTER

feet to a depth of D/4, where D equals the thickness of the section. The spacing of 10 feet may be reduced at closures but

no section of curb and gutter shall be less than 10 feet.

DIR. OF ENG.: Nahlung DATE: 5/12/03

10' Min.

10° Min.

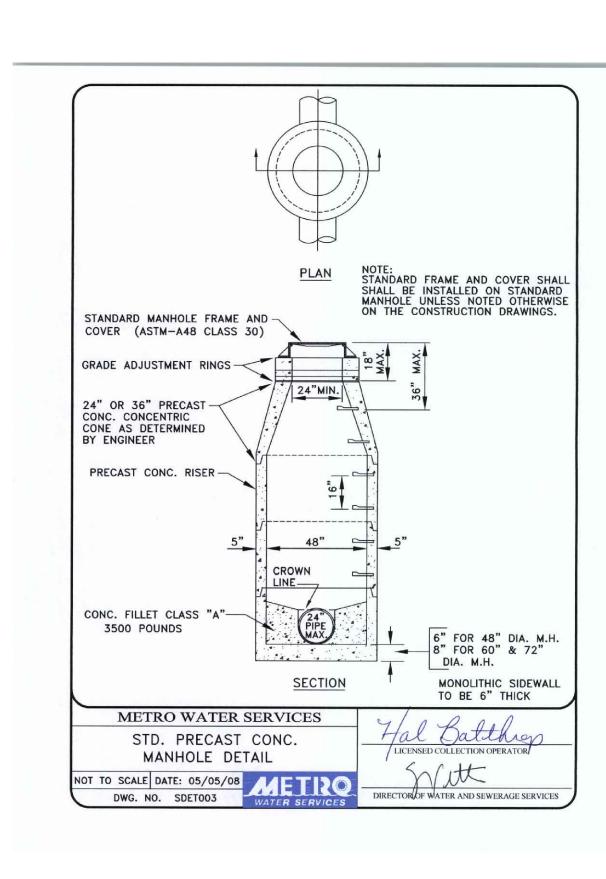
as directed by the Engineer.

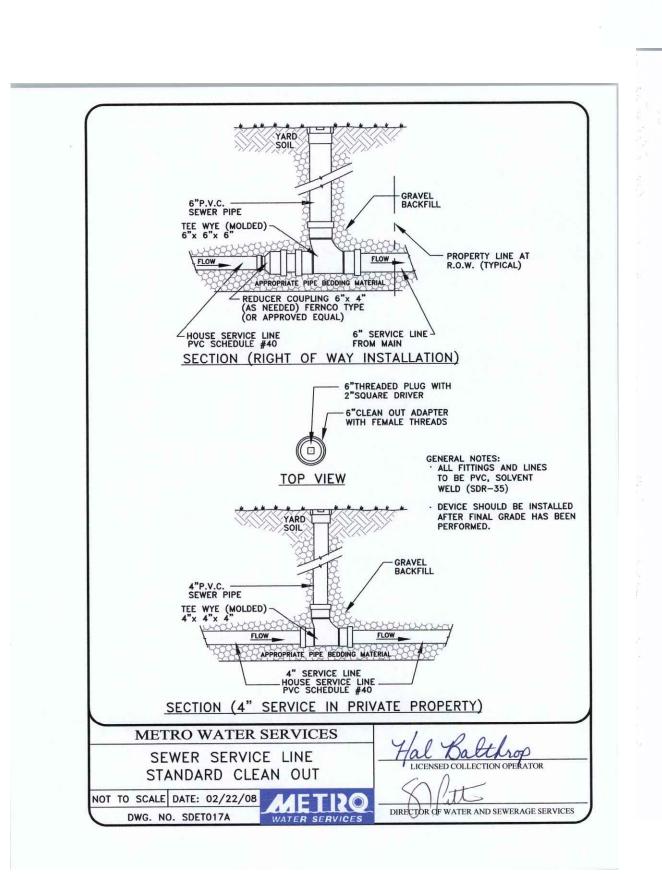
concrete curb with gutter.

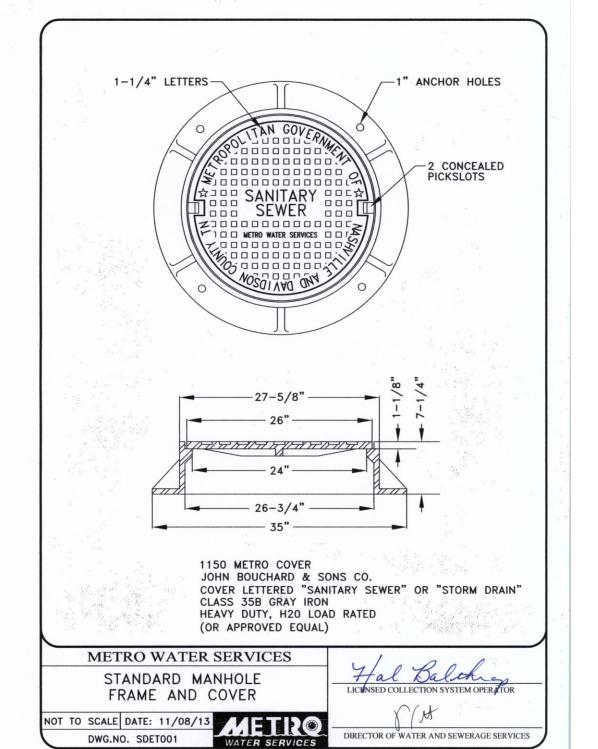
METROPOLITAN GOVERNMENT OF

IASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS

and inlets.







BUILDING PERMIT#: SWGR PERMIT#: MWS#: MWS#: UTILITY PERMIT#:

NOTE: SEE DRAWING NO. WDETOO6

OTHER OBSTRUCTIONS

-STANDARD CONCRETE-

KICKERS ON BOTH

METHOD OF CROSSING UNDER OBSTRUCTIONS

" SEE SPECIFICATIONS

ADAPTER PIECES

DIRECTOR OF WATER AND SEWERAGE SERVICES

FOR TABLE OF DIMENSION FOR

CONCRETE KICKERS

FINISHED GRADE OF STREET

NOTE: SIZE OF KICKER, CLAMP & RODS SHALL BE INCREASED IF

SPECIFIED ON LAYOUT SHEET OR BY THE ENGINEER.

METRO WATER SERVICES

CROSSING UNDER

OBSTRUCTIONS

2"x1/2" FLAT TRON STRAP

3/4" THREADED — RODS W/HEX NUT

> XXXX T2020049599 20WL0113 20SL0221 2020054609

