Planning and Development Department

Cabarrus County Government

Cabarrus County Planning and Zoning Commission
Tuesday, June 15, 2021 @ 6:30 p.m.
Cabarrus Arena, Cabarrus Room
4751 Highway 49 N, Concord, NC 28025

Agenda

Roll Call

1. Approval of April 13, 2021 PZ Meeting Minutes

2. **Old Business – Planning and Zoning Commission Function**:

   A. **Petition RZON2021-00001** – Request to rezone from Office/Institutional (OI) to General Industrial - Conditional Use (GI-CU). Applicant/Owner is Vulcan Lands, Inc. Address is 5300 Gold Hill Rd E (PIN: 6603-26-2969).

   A. **Petition CUSE2018-00004** - Close out documents for the amendment to CUSE2017-00001, Conditional Use Permit for Public Service Facility (Solar Farm). Applicant is Canadian Solar Solutions, Inc. **(Request to Table)**

3. **New Business Planning Board Function**:

   A. TEXT2021-00002 Proposed Amendments to, Chapter 4, Chapter 7, and Chapter 16

4. Directors Report
5. Legal Update
6. Adjourn

Planning and Zoning Commission Minutes

April 13, 2021

Mr. Jeff Corley, Chair, called the meeting to order at 6:48 p.m. Members present, in addition to the Chair, were Mr. Adam Dagenhart, Mr. David Hudspeth, Mr. James Litaker, Ms. Ingrid Nurse, Mr. Charles Paxton, Mr. Chris Pinto, Mr. Brent Rockett, and Mr. Stephen Wise. Attending from the Planning and Zoning Division were, Ms. Susie Morris, Planning and Zoning Manager, Mr. Phillip Collins, Sr. Planner, Ms. Arlena Roberts, Clerk to the Board, Richard Koch, County Attorney and Mr. David Goldberg Deputy County Attorney.

Roll Call

Approval of February 9, 2021 Planning and Zoning Commission Meeting Minutes

There being no corrections or additions to the minutes, Mr. James Litaker **MOTIONED, SECONDED** by Mr. Brent Rockett to **APPROVE** the February 9, 2021, meeting minutes. The vote was unanimous.

Approval of Granting Order and Findings of Fact for CUSE2021-00001, Conditional Use Permit for a Public Service Facility (Wastewater Treatment Facility)

There being no corrections or additions to the granting order or findings of fact, Mr. James Litaker **MOTIONED, SECONDED** by Mr. Stephen Wise to **APPROVE** the Granting Order and the Findings of Fact for CUSE2021-00001. The vote was unanimous.

Approval of Granting Order and Findings of Fact for CUSE2020-00007, Conditional Use Permit for Public Service Facility (Solar Farm).

There being no corrections or additions to the Granting Order or Findings of Fact, Mr. James Litaker **MOTIONED, SECONDED** by Mr. Brent Rockett to **APPROVE** the Granting Order and Findings of Facts for CUSE2020-00007. The vote was unanimous.

New Business – Planning Board Function:

The Chair said anyone wishing to speak tonight must complete a blue card and present it to the Clerk.

The Chair said we are going to skip to New Business and introduced Petition CUSE2018-00004 - Close out documents for the amendment to CUSE2017-00001, Conditional Use Permit for Public Service Facility (Solar Farm). Canadian Solar Solutions, Inc. **Request to Table**

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Ms. Susie Morris, Planning and Zoning Manager addressed the Board stating that Canadian Solar contacted her last week to schedule a Staff visit to the site. They feel like they will be able to install the landscape, they are still working with Metrolina. They asked Staff to coordinate a visit so that we would be there to see them installing the pine seedlings.

We have asked our Soil and Water Conservation Staff to accompany us on that visit to make sure that everything is installed that needs to be for those plantings and per their approved plan. They are also working on some revised engineering assessments of the basins, and that particular part is not worked out yet. It seems like we are working towards the installation of the landscape, and the staff visit. Hopefully, we can close that part of it out. The outstanding thing will be the engineering report and what they need to do with the basins. They are asking for this to be Tabled, until the June meeting or the next available meeting, based on what is happening with Covid-19 at the time.

There being no questions or comments Mr. Brent Rockett **MOTIONED, SECONDED** by Mr. Litaker to **TABLE** CUSE2018-00004 - Close out documents for the amendment to CUSE2017-00001, Conditional Use Permit for Public Service Facility (Solar Farm). Canadian Solar Solutions, Inc. The vote was unanimous.

The Chair introduced TEXT2021-00001 Proposed Text Amendments to Chapter 2, Chapter 4, Chapter 6, and Chapter 13.

Ms. Morris said in the Board packet there were some proposed changes to Chapter 2, Chapter 4, Chapter 6, and Chapter 13. There are three separate items discussed in the Ordinance that are being addressed in these amendments.

The first is Junk Vehicles; the Ordinance currently has some unclear language based on an exemption for AO. That is being amended to clarify that junk vehicles are not permitted in any zoning district and that one hobby car per parcel is still permitted, if it meets the standards set forth for the storage of those vehicles.

Chapter 2, the text for the definition for Recreational Vehicle (RV) is being amended. That amendment touches Chapter 2, Chapter 4, and Chapter 6, all that information is in the Board packet. It clarifies that an RV cannot be used as a temporary dwelling or a permanent dwelling. It also talks about it not being allowed to be used as an accessory dwelling unit. It will have to be in a manufactured home park that has specific spaces designated for those types of transient vehicles. It does include an allowance, if we were to have some type of emergency here, be it a flood, hurricane, or tornado, a natural disaster that would happen, there is an allowance.

We have the allowance already for temporary uses for the FEMA trailers, but this would allow individuals if they had a fire or something happened at their house or in the process of rebuilding, they would be able to live in the manufactured home for 180 days but only if it were that type of natural disaster that happened.

Chapter 13, the proposed change provides additional flexibility in the administration of minor changes to approved site plans, or conditional use plans, or special permit use plans. It clarifies how it is determined whether it is a minor modification. If it is determined that it is a minor modification, there are some standards set forth that address how some of those are handled.

For example, if it is a building and if it moves less than 20 feet then it is considered minor. If it is over that then it is considered major and would have to come back to the Board or to the approval body, so it sets up some standards for those items. One of the other examples is if it is simply substitutions of landscape and not changing the quantity or anything like that of the plan, that could potentially be an administrative amendment through this minor modification process.

Ms. Morris is happy to answer any questions the Board may have. We are looking for the Board to make a recommendation to the Board of Commissioners so that this can move forward this evening.

Mr. David Goldberg, Deputy County Attorney said it was an excellent summary. He said to make sure there is a consistency statement for the recommendation to the Board.

The Chair asked if there were any questions for Staff.

Mr. Dagenhart asked if there were any discussion on RV as a home; if an individual buys a property and puts an RV on it while they construct a new home not a rebuilt? His understanding is that that would not be allowed.

Ms. Morris said that is correct. That would not be permitted. Typically, what we see when that happens is that people end up moving into the RV. RV's are not built to any type of a construction standard. They are only meant for a temporary habitation, even the park model is not built to North Carolina building code. A lot of people do not understand that, so it is not proposed, and it is not recommended.

What we are proposing though, is if we have some sort of natural disaster, if someone had to rebuild or if their home caught on fire, they would be able to live in it for 180 days and they would need a temporary permit for that.

Mr. Charles Paxton said for clarification, did you say that if they are building a new home even for whatever period time, a RV should not be allowed?

Ms. Morris said it is not allowed.

Mr. Paxton said what about an RV park or something like that where people stay for a length of time, does that have anything to do with these.

Ms. Morris said this would not impact that. Cabarrus County really does not have any RV parks in the traditional sense or campground that you would think of, in the unincorporated County.

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There is a campground located near the Charlotte Motor Speedway, and the mobile home parks are allowed to have a certain number of transient spaces, but even those are still governed by that 180 days.

If the Board remembers, when you were dealing with the tents, and the wedding facilities, that 180 days is that number that comes up for temporary uses, things that are not inspected by the Fire Code; it all kind of turns back to that 180 days. That would not be something that would be permitted.

She said if there was an RV, in say Little's Mobile Home and they had transient spaces, it could park there and they could live in it there theoretically, for up to 180 days.

Mr. Goldberg said that is consistent currently with current law, as it is right now. That is specifically provided for in this purview.

The Chair asked if they were any other comments or questions. He said we will need to try to build a record here before calling a vote.

He said, providing the flexibility for those minor changes is very important especially to applicants that have indicated through the formal process to be able to go through a smaller process and he thinks it is more efficient. He thinks for this Board, Staff, and the Applicant, it seems like is a win there and he applauds building that flexibility into the language and he thinks it is very important.

Mr. Paxton thinks it is in the public interest, number 3. But he has a problem with number 2, about RV's being denied. He certainly would be upset if I was building a new home and I had no other means. I would like to park an RV wherever. He has a problem with that.

The Chair said Mr. Paxton, your comment is specific to a vacant lot and building a new home; sort of a temporary housing situation until the house is built.

The Chair said we have heard that twice now, does anybody else have any comments on that specific issue?

Gentleman from audience said if a temporary worker comes in working on a pipeline or a power line and wants to stay in an RV park, how long can they stay in a RV?

Ms. Morris said unincorporated Cabarrus County does not have any RV parks or any campgrounds. Where those people are staying or where they are located is in the municipal limits where utilities are available, where those tiny lots can be accommodating for the recreational vehicles. As to how long they can stay, that is not something that she would know because that is not something that they would have to get a permit from the County for. That would be up to the individual renting them the spaces, how long they can stay in that park or space.

Mr. Dagenhart said does it makes a difference if an individual owned a piece of property and went ahead and pulled a well and septic permit and had an RV there and used those utilities.

Ms. Morris said that makes it worse, because people tend to either rent it out or someone lives there. We do not issue permits for well or septic related to an RV. They can sometimes, if they sign a document with us and an affidavit, they are allowed to potentially have a power source near the RV so that they can keep the refrigerator on and clean it and get everything ready to go, and clean it out when they come back, but we do not allow well and septic related to that and the Health Alliance does not allow for a use like that to put a pipe into a septic system.

Mr. Dagenhart did not mean a pipe directly; he assumed using an RV they would dump whenever they were full like an RV park.

Ms. Morris said no that is not permitted.

Mr. Stephen Wise said this amendment here is just for a house that is burnt down, they can put an RV, not for new construction, right?

Ms. Morris said correct.

Mr. Wise said it is not for anybody wanting to build a new house to park an RV until the house is done.

Ms. Morris said no, initially that language was not even in there. We added that in so that it would complement the FEMA trailers if we had some type of disaster, so that we would not have to try and scramble to put something in if we had some type of significant weather event here and we had a lot of damage to the residences.

Mr. Wise really thinks 180 days is probably not long enough, by the time you get the insurance and you get the house rebuilt. He thinks that is a real short period in today's time.

Mr. John Gomez (gentleman from the audience) said the gentleman in the blue shirt, and black mask made a good point, saying why are you not allowing people to stay in an RV while they are building their house out in the country. They had to have the water and they had to have a well and they had to have temporary power. That is happening right now, so you are trying to prevent people from building their own houses and staying on at that homesite while it is happening. Is that what the purpose of this is?

The Chair believes the intent is to limit the permanent for long term use of temporary housing as permanent housing. There are certain situations, if we allow those RV's to be there in certain situations, what he is hearing from Ms. Morris is that they tend to stay. He thinks what these changes are trying to do is to formally separate what is permanent housing and what is deemed temporary housing.

Temporary housing is not subject to any sort of building codes or anything. So, if somebody buys a piece of land and pops an RV up there, which we know of some, right? Those of you that went on the solar farm visit, you know of one that we passed there.

He thinks the intent is to not allow things that are designed for temporary inhabitance to be used as permanent or long term. He personally sees the risk of long-term housing in temporary conditions like that.

Ms. Morris said to clarify, this information was already in the Ordinance. We are trying to bring it to one location, so if someone was looking for that item, they would be able to find it. It was under temporary uses, it was in the definitions, it was also in the Manufactured Home Park section.

This is trying to bring all those different standards to one place where somebody will understand what the standards are, what the rules are and what they are able to do and not to do without having to go to multiple places in the Ordinance.

She said this is not new information, the only thing that is new is allowing people, if we have some type of a disaster to temporarily live in an RV, to get their home back into habitable conditions or to where the Building Inspector says that they can go back into that house and continue to work on it.

Mr. Paxton said you are saying it never was allowed for someone building a new house to be able to park an RV there and stay there until the house is built.

Ms. Morris said that is correct. It has never been allowed under the County Ordinance since the Ordinance was adopted. We are lessening, by allowing someone if they have a disaster to use a recreational vehicle during that time.

It has never been allowed because it is considered temporary housing, it is not built to building code and like the Chair said, typically the situations where we find where that is happening, people do not vacate, it turns into long term, it turns into a rental, it turns into an Airbnb or it turns into an accessory use and then it is an Airbnb.

She said it has never been allowed, things are just being moved to a different section of the Ordinance, and with that we are proposing to allow some limited use of an RV for habitation for 180 days, if there is some type of weather event that comes through and people have a lot of damage and cannot live in their homes.

Mr. Paxton is now back to the 180 days, in the event of a fire or tragedy. He does not agree, and he does not think that is enough time. He thinks we should have some type of right to renew or something like that, he does not like it.

The Chair asked Ms. Morris if that is something that Staff can extend, if progress is being made in the rebuilt process, is that allowed to happen?

Mr. Goldberg said if we want to do that, we want to make it clear, and that is kind of the point of all of this. This discussion came about because we were writing a citation for someone who has an RV, it is old and falling apart, the wheels are off, and it is on cinderblocks. We sent a citation and they came back saying they did not understand, where does it say this is illegal.

He had trouble explaining it the first time around. So, we transposed it, so that it makes sense to be transparent about these kinds of key things.

Similarly, to that point he also wants to make sure to build on this, is the standards for storage as well. We are running into situations where people are saying I do not actually live in there, I am just storing it. Well, it is hooked up to utilities, it is off the wheels, you are not storing it very well. We will need a very clear standard on that.

He said the recommendation to Staff is 180 days, if we wanted to provide for some sort of extension, that is something we could put in there if you thought it appropriate. He wants to make sure that the Board keeps that in mind when talking about consistency with the Area Land Use Plan, it talks about consistency issues. At what point is 180 days turning into 360 days, where is that line?

Our legal and public health safety concerns are that these are temporary houses and are not meant to be permanent full-time habitation and they present as real material health and safety hazards.

Mr. Dagenhart asked if we are saying that the Ordinance currently does not allow Uncle Frank from Chicago to come visit in his RV and stay for a couple of days? Is that what we are saying?

Ms. Morris said the Ordinance says that you cannot live in an RV, and if we had a complaint from a neighbor because someone did pull up with their Prevost and was there for a week, we would have to investigate it.

Mr. Paxton said investigate it? What are the rules, that Uncle Frank cannot stay there for a week?

Ms. Morris said they would have ten days to correct the violation, and after that they would be sent a citation.

Mr. Gomez asked how long this Ordinance has been on the record?

Ms. Morris said since 1983.

Mr. Gomez asked if it has been enforced regularly?

Ms. Morris said yes it has.

Mr. Gomez said his comment to the gentleman in the suit is that a lot of times you can store things better if they are dry and in a controlled environment. Some people instead of getting a storage unit, they can store things in a camper or some other use. So, just because they are off the ground or has electric does not mean it is not a good storage area. In fact, it would make it a better storage area because it would be a controlled environment.

The Chair restated that the Board is not being asked to change this Ordinance. We are being asked to add the 180 days in the event of damage to where they cannot live in their permanent dwelling, and then we are putting this in a place that makes much more sense.

If we as a Board would like to investigate this section a little more, he would ask that we not do this now. He thinks there is some things that we are trying to accomplish with this item that was not intended to have us dive into changing existing requirements. He wants to stress, that if we do this if we make this change and if you feel strongly about readdressing this item, we will make a point to have those discussions.

He thinks, with the intent of what we are trying to do tonight, if everybody is okay and in agreement that we really are not changing anything, except adding that exemption. If we could maybe put away the discussion of changes and maybe address that on a later date if everyone is okay with that.

Mr. Brent Rockett agrees that the intent of this change seems to be well thought out and he thinks is something that he thinks is of the benefit to the community to add that option for those who have been put through some type of act of God or incident with their home, whether it be fire or weather or otherwise. He thinks this is a move in the right direction and presents an opportunity to a family or individual in need.

The Chair said any time we can clarify for people on the unfortunate end or on the front end, what they can or cannot do in areas, he thinks is important to offer that clarity. He appreciates that cleanup there, making sure that it is clear, very clear on where you can and cannot do those things.

The Chair asked if there were any other comments on these three. He thinks that Staff has heard our concerns on item 2 and maybe there will an opportunity to address potential changes or discussion on those items at a later date.

Mr. Richard Koch, County Attorney, said in reference to that same one, you all aware of the one-off Joyner Road that you saw when you were out inspecting the solar farm. He can think of at least two others we have had in the past which were in the exact situation that Ms. Morris was talking about. Where people were building a house, but they are living in their RV on the property and it is not just for a short period of time.

What happens is that the house ends up not being worked on. One that we have had it was over a year that we were trying to deal with them. Another one that he can think of was not that long but the same kind of deal, where they were trying to live in a mobile home. But that one was not hooked up like it was supposed to be.

The problems that we see in trying to enforce this have been identified like that. It has not been someone out building their house and they are trying to save a little money by living out there for a specific length of until they get the house built. It ends up becoming much more than that.

Mr. Rockett said as Ms. Morris mentioned, with all of it being conveniently located together within the text here, certainly, he thinks lends itself to a better understanding and easier enforcement in the future, so people are not pluming through or scrolling through this lengthy document trying to put the pieces together. He thinks it is in the best interest.

Mr. James Litaker feels like this makes it a whole lot easier for our employees here at the County to enforce it. It doesn't have to be expanded upon. As long as the enforcement personnel can push through with this, it should be a good situation and something that can be addressed later if we decide to have RV's parks.

There being no further discussion, Mr. James Litaker **MOTIONED, SECONDED** by Mr. Stephen Wise to recommend approval of TEXT2021-00001 Proposed Amendments to Chapter 2, Chapter 4, Chapter 6, and Chapter 13 to Board of Commissioners. The vote was 8 to 1 to **APPROVE** with Mr. Charles Paxton opposed.

The Chair said anyone wishing to speak tonight must complete a blue card and present it to the Clerk.

The Chair read the suggested rules of procedures for the Board of Adjustment cases.

1. The Cabarrus County planning staff person(s) shall first present the staff report and answer questions from the Commission. There will be no time limit on this presentation.

2. The Applicant may make a presentation to the Board (optional) and will then answer questions from the Commission. There will be a 15-minute time limit on the presentation if the Applicant choses to make a formal presentation. There will be no time limit on questions from the Board following the presentation.

3. When the Board is ready to proceed, the proponents (those speaking generally in favor of the case) will have a total of 15 minutes to speak and/or present documents in support of their position. The 15-minute time limit does not include questions directed to the proponents by the Commission.

4. After the proponents finish, the opponents (those speaking generally against the case) will have a total of 15 minutes to speak and/or present documents in support of their position. The 15-minute time limit does not include questions directed to the opponents by the Commission.

5. Each side will then have 3 minutes for rebuttal, with the proponents going first. Again, questions directed to the speaker will not count against the time limit. This will conclude the public hearing portion of the meeting and the Commission will proceed to deliberation.

6. Each side is strongly encouraged to use a spokesperson to present the positions commonly held by each. Each side is also strongly encouraged to organize their speakers and presentations to ensure that all persons wanting to speak will have time to do so. If a speaker has questions of a person on the other side, such questions shall be addressed to the Commission members to be redirected to the person to be asked. There will be no direct questioning of one speaker by another except through the Commission.

7. Public demonstrations of support for a speaker's comments should be limited to clapping. Any other type of audible support shall be out of order and subject the offender to being removed from the building. Anyone speaking out of order shall likewise be subject to removal.

8. These rules are designed to have a full and fair hearing that is orderly and expeditious and avoid unnecessarily repetitious presentations.

Mr. Brent Rockett, **MOTIONED, SECONDED** by Mr. Adam Dagenhart to **Adopt** the Rules of Procedures as presented. The vote was unanimous.

The Chair introduced Petition RZON2021-00001 – Request to rezone from Office/Institutional (OI) to General Industrial - Conditional Use (GI-CU). Applicant/Owner is Vulcan Lands, Inc. Address is 5300 Gold Hill Rd E (PIN: 6603-26-2969).

The Chair asked if there was anyone who had a conflict of interest or any information that needs to be shared in this case. The Chair said that Mr. David Hudspeth has asked to be recused.

Mr. Brent Rockett, **MOTIONED, SECONDED** by Mr. Adam Dagenhart to recuse Mr. Hudspeth. The vote was unanimous.

Mr. Phillip Collins, Sr. Planner addressed the Board presenting the Staff report for RZON2021-00001 – Request to rezone from Office/Institutional (OI) to General Industrial - Conditional Use (GI-CU).

He said the proposed uses is storage of processed materials and by-products from the adjacent quarry operations, forestry operations and pond maintenance. The property owner has also

submitted a site-specific development plan that will be tied to the conditional use rezoning request in perpetuity.

The address of the subject property is 5300 Gold Hill Road East and the size approximately 138.38 acres.

The subject property is currently vacant. A perennial stream meanders along the north eastern border of the subject property. A large pond is located in the northern portion of the subject property. There is an existing access to the subject property from Gold Hill Road East. There are also connections to the subject property from the quarry operation located to the east of the subject property. There is no floodplain located on the subject property and is it not within an existing watershed.

The subject property is surrounded by residential land uses to the south, west and east. The existing quarry is located to the north and east side of the subject property. There is AO zoning to the south, east and west of the subject property and the existing quarry is zoned GI and to the north it is zoned Rowan Industrial.

The Ordinance states that GI permits both large and small scale industrial and office development, its primary purpose is to provide a location for large scale development. It is designed to permit a very wide variety of industrial uses which may occur both indoor and outdoor, including certain land uses which are permitted in no other zoning district because of their potential to create nuisances for adjoining properties.

The property owner has requested that the subject property be limited to the storage of processed materials and by-products from the adjacent quarry operations, forestry operations and pond maintenance. The property owner has also submitted a site-specific development plan that will be tied to the conditional use zoning in perpetuity.

The Ordinance state that the OI district is intended to accommodate relatively low intensity office and institutional uses at intensities complementary to residential land use. This district serves as a transitional district between residential land uses and higher intensity non-residential land uses.

The subject property is located adjacent to the US-52/Glenmore Road area which was included in a list of 17 sites for potential economic development opportunities in the 2006 Strategic Plan for Economic Development. The US-52/Glenmore Road area was included due to its situation and its potential for mining and production of lightweight structural aggregate.

The subject property is also located within the Eastern Planning Area. The Eastern Area Plan (EAP) recommends that the northeastern portion of Cabarrus County develop as an area of Future Employment. The EAP further addresses this area as follows:

Highway 52 Corridor: Located in the Northeast portion of the planning area, this highway is planned for widening. Eventually, US 52 will be widened from I-85 in Salisbury to US 74 in Wadesboro. The first phase of this project will run from Albemarle south to Wadesboro. The second phase will run north from Albemarle to Salisbury. Given existing uses along this corridor, the portion in Cabarrus County should be reserved for industrial uses.

- Determine if an existing utility provider is willing to serve this area with utility service and/or examine the feasibility of providing utilities with wells and a modular wastewater treatment facility similar to the facility in use in Midland.
- Ensure that appropriate access management techniques are employed to ensure that the highway will function appropriately.
- Work with rail providers to serve this area with freight service and spur lines.

The site is currently vacant/wooded and zoned Office/Institutional.

Residentially zoned and used properties border the subject property to the west, south and southeast. The property is bordered by an industrial use to the east and north.

The proposed use of extraction of earth products/mining is not permitted in the OI district. The proposed rezoning to GI-CU would allow the adjacent mining operation to use the subject property for storage of processed materials and by-products from its quarry operations. Portions of the subject property are also proposed for forestry operations and pond maintenance.

The property owner has submitted a site-specific development plan that will be tied to the use of the property in perpetuity.

If approved, the subject property could only be developed as presented. Any future deviations from the adopted list of uses or proposed site plan would be considered an amendment to the conditional use zoning district and would require Board review and approval.

The proposed use of the subject property is in conformance with the proposed zoning district and the plans in place for that portion of the County. The proposed uses are permitted in the GI zoning district. Extraction of Earth Products is permitted as a conditional use.

The proposed general industrial zoning is in keeping with the future employment recommendation of the land use plan.

The proposed quarry use for the newly acquired property is consistent with the mining operations on adjoining properties which have existed in this area of the County for decades.

Quarry related uses on the site are reasonable given the uses on the adjoining properties.

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The subject property is accessed from 5300 Gold Hill Road East and from the mining operation to the east.

The applicant has provided a site plan that provides appropriate buffering as required by Chapter 9 of the Zoning Ordinance.

The applicant states that a 100-foot buffer will be placed along all of the property lines not adjacent to the existing quarry and it will remain undisturbed. The applicant claims that the existing vegetation within the 100-foot buffers is sufficient to satisfy the requirements Chapter 9. The applicant is not proposing a landscape buffer along the property lines adjacent to the existing quarry.

Approval of this request involve two steps:

The first vote is to consider whether to change the zoning classification for the property and is a legislative action.

The second vote is to consider the site-specific development plan and proposed conditions of approval. This is a quasi-judicial action.

Should the Planning and Zoning Commission grant approval of the rezoning and consider issuing the Conditional Use Permit, Staff requests the following conditions become part of the approval and case record:

1. Granting order, stating restrictions and applicable conditions of approval shall be recorded with the deed for the property.

2. Any changes to the approved site plan must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit.

3. Copies of any state, local, and/or federal permits related to the use of the subject property shall be submitted to the Planning Department as part of the permanent project file.

4. Applicant must comply with the terms of NCDEQ/NPDES Industrial Stormwater Permit NCGO 20000 and NCDEQ Mining Permit 13-04.

5. Applicant is proposing to use existing landscape to meet required landscape buffers. Where there are gaps in planting areas or planting areas do not conform to ordinance requirements, applicant shall provide supplemental plantings as needed to obtain ordinance conformance.

6. Applicant shall provide a copy of the Reclamation Bond where the Obligee is NCDENR to accompany Surety Rider that was submitted.

7. Applicant shall provide a copy of the survey at a scale of 1:100 at the time of zoning site plan review.

The Chair asked if there were any questions for Staff, there being none, he called on the applicant.

Ms. Susan Todd, Attorney, Johnston Allison Hord, PA, 1065 East Morehead Street, Charlotte, NC representing her client Vulcan Materials Inc. and the applicant Vulcan Lands, Inc. addressed the Board.

On behalf of Vulcan, she wanted to introduce some folks in the audience tonight. Mr. Zach Plasters, Vulcan, Denise Hallett, Vulcan, Rich Newby, Plant Manager, Gold Hill Quarry and Tony Johnson. Also here tonight is Wes Webb, Engineer and Carol Fortenberry, Appraiser.

We have already submitted an application, an operational plan, a rehabilitation plan, and she will go through a brief power point and will be ready to answer any questions. We have also submitted the affidavits that the Board has in their booklets of Wes Webb and Carol Fortenberry, highlighting their professional opinions in regard to the property and the proposed site.

This is a Conditional Use Rezoning for Vulcan Lands Inc. Gold Hill Quarry has been in existence since 1953, and Vulcan has been operating it since 1988. As you know Vulcan is the largest manufacturer of construction aggregate. It is an American company, and due to the unique geology here in this area, it produces and supplies a lava type aggregate that has been used by Stalite. It raises the heat and heats the product to literally such a degree that it pops and is used as a light weight aggregate shipped throughout the world and used in the oil rig docks as well as bridges and things like that where a light weight aggregate would be helpful.

Obviously, mining is regulated by numerous federal, state, and local regulations. The Gold Hill Quarry is subject to a mining permit as is the subject site.

Vulcan does a lot of good in the area. The existing quarry is a wildlife habitat, it is also part of the WAIT Program (Wildlife and Industry Together).

We are asking tonight for a Conditional Use Rezoning, the property is currently zoned Office Institutional (OI) and we are asking that it be rezoned to General Industrial (GI), however subject to a conditional use site plan which limits its use to the storage of overburden.

The property is 138.38 acres and the site is generally located between Gold Hill Road East and the existing Gold Hill Quarry. Again, the use will be limited by the site plan, and the site plan notes to overburden storage and that is coming only from the adjacent Gold Hill operations.

What is the overburden storage? Overburden storage is when they mine and create pits. It is the soil, the dirt, the excess rock, everything that gets pulled out of those pits, the byproduct. If you do not have an overburden storage area, you end up having to haul that product offsite.

So, what does it look like? The overburden storage area, which is what we are proposing for this 138-acre site, it consists of plateaus and berms that are mounded. The overburden storage is then mounded and cannot not exceed 40 feet in height, each mound or plateau, per Ordinance requirements. Then at regular intervals those mounds are vegetated and then they are left to be replanted by nature. (She showed examples of overburdened storage sites in Macon, Georgia, Stafford, Virginia, and Rockingham, North Carolina). She said as you can see, it is just over vegetated mounds of imperious substance. Once these mounds, plateaus and berms are built, it is just left to nature or a critter habitat.

She said Vulcan is proposing a 100-foot-wide perimeter buffer of existing vegetation around the non-quarry perimeter of this property. Everything that is not in the quarry, so that would be 100 feet of existing vegetation left. We are doing this in four phases, (she showed Phases 1,2,3 and 4). Prior to doing any work in any of the phases, Vulcan has recommended in its traditional notes that they will meet with the Planning Staff to ensure that the buffer in that area is adequate.

She said Area 5, up at the top, will be left in its natural state. It is not going to be used for overburden storage, it is just going to be left in its natural state except for maybe its timbering operations.

Essentially, what Vulcan is proposing is buffering a buffer. This will be a 138-acre buffer between adjacent AO property and the existing forest side. We want to show the Board what the existing vegetation around the perimeter of this property looks like. We picked some slides at regular intervals to give you an indication of what it all looks like. Again, we are committing to, as we enter each phase, and if you know mining, you know that it moves very, very slowly. As we enter each phase, we will meet with Staff to make sure that vegetation is still there and adequate. You can see from the arrows pointing to the vegetation and to where it is right now on the site.

We have identified three areas, two of them are in Area 5, which is not going to be used anyway and would require additional vegetation if we were ever to work Area 5, which we admitted we won't be, we would supplement it for you. There is a pond there in the perimeter and you would not be able to buffer around there. We will not be in Area 5; we plan on leaving it natural. There are two other areas that we have proposed specific plans for each of those areas before we move into those, we would provide that additional vegetation.

In summary, no blasting or excavation of product is proposed for this entire site. No structures are going to be on site, no commercial. All commercial access will be internally from the existing quarry into the proposed 138-acre site. There will be no commercial access allowed, or in and out of the old quarry use, we do not have a driveway permit for that. The only access for that would be from Hall Road if we were timbering. The benefit to that is that it does reduce

truck traffic to and from the site which would otherwise be necessary if we did not have adjacent overburden storage.

She said that concludes our presentation. As she previously mentioned, we do have affidavits with regards to the four standards that we are required to show with regards to health and safety. We have statements from Wes Web as far as the use and conditions. We also have an affidavit for Carol Fortenberry our appraiser. We would be glad to have them go through the affidavits or we are available to answer any questions the Board may have.

Also included are some proposed Findings of Fact in the back of your notebook and a menu of options for the Board to look at based any evidence presented in the book. She asked if there were any questions.

The Chair said you could have approached this Board and obtained permits to actually mine this property had the owner wanted too, correct?

Ms. Todd said yes, the property is subject to a mining permit in General Industrial, with a Conditional Use or a Special Use Permit which would have allowed that. But again, our site plan is specific in limiting it.

The Chair said we are taking the waste material (for the lack of a better word) from the active site and moving it. He said pardon my ignorance, he has not been there, when he hears mining, he thinks of the big giant mining trucks and the noise and trucks backing up with backup alarms, all day, and all evening. He asked if that is what these neighbors are going to experience all day long?

Ms. Todd said we do have in our Operational Plan; we are required to provide that for this rezoning, and it does have specific hours and days they would be working. She asked Zack Plasters with Vulcan to address the question regarding truck noise.

Mr. Zack Plasters, Area Plant Manager, Vulcan, addressed the Board stating they are a Monday through Friday operation. We do supply Stalite on Saturdays and Sunday, but we are not running our pit operations outside of the Monday through Friday hours. We will be moving this overburden Monday through Friday, but we do not do any of that at night. Generally, our hours right now are 7 a.m. to 4 p.m. Within those hours it is possible that some noises could be heard but given the distance and we will be constructing a berm as we go which also help essentially to dissimulate sound to some degree. He said given all those factors it is not going to be something you hear all day all during the week.

Mr. James Litaker asked what the expected life of this whole project; how long does he think it will last.

Mr. Plasters said a lot of that is very demand driven. It depends, what we move is overburden driven and what our customers' needs are. We are mining for a very specific geology, at retail

and supply Stalite, and depending on their volume, kind of depends on how much is asked. It is a very specific geology we have to uncover. It is all market driven; we anticipate, and Mr. Webb and can discuss this too, but when we talked about the phasing, we estimate it based off demand. It could be two years per phase at very high volume or it can be as long as ten years. It could be anywhere from eight to forty years.

Mr. Wes Webb, Engineer, Alley, Williams, Carmen, and King (AWCK), addressed the Board stating that when we talk about the market driven, volume is driven heavily by other industries pending construction, Stalite is a product of that. When there is downturn in the economy there is less construction, less road building and less need for concrete, especially lightweight concrete, like a high rise, bridge decks or offshore products.

So, in those periods when there is less demand there is no reason to be mining the rock, they can only stockpile a certain amount. Basically, looking at the demands that they had over the last two years and how we generate the phases and try to work the four phases you see here in, assuming the demand will continue, roughly about two years per phase. He said no one can predict the future, hopefully the market will get better. During this time period where the market has driven down, there will be less material being moved over to these open pit areas. During those periods they will be stabilizing the material and staying where they are.

Ms. Todd said if it is two years per phase, and once you complete the phase what happens? Let's say we get through all of this in eight or ten years, what happens to the property after that?

Mr. Webb said vegetation occurs, it is an ongoing process through it. The way this will be built is they will work on the perimeter of the site and then work toward the inside towards the quarry in each phase. The first phase is closest to the quarry and then continues to move out. Once the final product is finished, you will have vegetated berms and vegetated top and low maintenance type vegetation is geared toward habitat improvement.

So basically, you have a large area that has seeds and ultimately trees, generated toward wildlife. There is no future use for the project as far as material storage, equipment storage, it is a big berm once they get it completed.

Mr. Paxton asked if there was any type of monitoring of this overburden byproduct, is it damaging to anyone or anything?

Mr. Webb said as far as the material that is going in, they are taking material out of the ground and then it goes through a crushing process and puts byproducts that were not used, shipped or sold gets stored in the ground in these overburdened storage areas. It is a mixture of dirt, soil, rock that does not meet standards or rock that does meet the correct size. There are certain standards for either Stalite or NCDOT. If the rock does not have the proper hardness or does not have the ability to make the product that they need for Stalite then it is a waste product at that point. All this material is blended and is hauled over to these areas and stockpiled.

He said from a monitoring standpoint, it is in the mining permit, so the Department of Environmental Quality evaluates the sites, typically they have annual inspections, but due to Covid that may have changed. They have a permit and are responsible for staying within those permit conditions. The sites are inspected by several different divisions to ensure that land quality, air quality, and water quality are maintained.

Ms. Todd said as far as the vegetation goes, is that to stabilize the berms and the plateaus and to protect against from any kind of runoff, is that right?

Mr. Webb said yes, the stabilization is designed for the erosion and at the end of the day the vegetation is your best method. The banks are sloped, and we provide drainage control structures and drain features for quick runoff, and with this process, we are deferring almost all runoff on site into the pit. So, there is very little impact to adjacent property owners.

The Chair asked if there were any other questions for the applicant. There being none, he opened the Public Hearing.

He said just for clarification, this is a Conditional Use, which means everything you have seen, and all these conditions about what they can do on this property, the site plan that they have shown on phasing, the areas they are saying they are not going to disturb and all of the uses that they listed, that is all that they can do if we approve this.

A lot of times, we get questions about what if they want to do something else later. They would have to come back to this Board, and this Board has to approve every single change to this plan that they have proposed tonight. Any change to their plan or list of uses, including if they wanted to mine the site later on. If they change their mind in two years, they will have to come back to this Board, and you will have an opportunity to speak again and this Board will make another decision based on the facts in that case.

The Chair said the Public Hearing is already open and he asked if there was anyone here in favor that has not already spoken. There being no one else to speak in favor the Chair called on Mr. Jackson.

Mr. Jon Jackson, 5450 Gold Hill Road East, Gold Hill, NC addressed the Board stating, that he came hear mildly ambivalent to the whole situation. He is sorry but you sound like an apologist for Vulcan before we start, that is his opinion.

When we got here, we spoke to the Attorney, the young lady, and he asked her how long these phases were going to last. She said probably ten years per phase, and now he is hearing two years. He is hearing that you are going to potentially cut all the woodlands out. He assumes you would do that all in one phase which greatly concerns him because if I only have 100 feet of woods, mitigating the sound of all those trucks, and all the dust and debris that is going to be occurring from this situation, he has major concerns about his lifestyle.

He hears 7:00 to 4:00 which is wonderful, but if he has to listen to backup alarms eight or nine hours a day, he is concerned about that. He said that is very little that helps his quality of life, it does very little to help his neighbor's quality of life. He is asking for a little more specificity, as far as, are you really going to cut all the trees at once and subject everybody to that extreme amount of noise? Or are you going to cut the trees out in phases, hoping that the berms going up will be enough to mitigate the noise.

Because now, if the wind is moving in an eastward direction, he can hear trucks all day long, especially the backup alarms. He has no problems hearing your sirens when they are going to explode or use demolition tactics because we get the 3 alarms and then his house shakes. He knows what happening when you are doing that. He is more concerned about the noise with that once you cut down all the trees.

He sees plans for a plunge pond. Is that something that you are intending to do on that property or are you planning to use a plunge pond further back into your operation? Are you blasting for that as well?

He said at first, he really didn't care. The more he hears, the more concerned he is with his quality of life of the people adjacent to this property. He needs to hear more answers than grumbling and the talk that it is really kind of a done deal, but we are going to make it sound like we are trying to listen to the people around.

The Chair said we will direct those question and he appreciate the comments. That is the purpose of this process, is to hear everyone. We have an applicant that is attempting to do something, and this Board is considering all the facts. Please do not feel like this is a done deal, this is a very official process, that we need to hear everybody's opinion and everybody's stance and examine the facts.

He said let me redirect, first the question about the timbering schedule, whether the whole site will be cleared at once or whether it will be done in phases.

Mr. Plasters said our timbering plan will be to clear the property at one time. Logistically, that is the best in terms of what we need to do operationally. So, we would be clearing the entire site.

Ms. Todd said we would be leaving the perimeter buffer?

Mr. Plasters said that is correct, the perimeter buffer is still there.

Ms. Todd said timbering internally and not in Area 5?

Mr. Plasters said yes.

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The Chair said if it takes forty years, what happens to the land you have not put material on yet? Do you actively maintain that land or it going to grow up again and then you will clear it again?

Mr. Plasters thinks naturally, there will be some revegetation of that property, it always occurs when you clear sites. It does get replaced over that longer timeline. You will see some volunteer vegetation in that time frame.

Ms. Todd said will you be removing the stumps?

Mr. Plaster said no, we will not be. That is a good question. The question was, will we be grubbing the property as well, which also means removing stumps which usually tends to higher-level ground disturbance. He said we will not be doing that, generally we just timber past stump level and then retrieve them there and place material overtop the stumps and topsoil.

The Chair said the plunge pond is a little unfamiliar. He knows there is an existing pond on that site, and he asked Mr. Plaster to comment on that.

Mr. Plaster said that is better directed to Mr. Webb.

Mr. Webb's guess is the plunge pond is in reference to the set erosion control basins that show up on the perimeter of each phase. A basin will be installed on perimeters that flows off the property to prevent any sediment from moving from the site onto adjacent neighbors and then the intent of the grading is to force run off to be flowed back internal to the site and into the pit. We may need to pull up one of the exhibits and see if that will help.

Mr. Webb showed an exhibit. This shows the first phase of construction. This pool is a sediment basin that gets filled based off water that flows this direction from the original drainage basin. Once the basin is built, this area here is filled with the intent ultimately of keeping water flowing back this direction and collected. As the fill height is raised, eventually it is going to bring some stuff here and take some water off the top and then continue to maintain and keep water flowing this direction. This part over here flows this direction naturally.

Mr. Webb asked Mr. Jackson if that the area he has a concern about. He said he can move through to the next phase. He showed on the exhibit where sediment basins will be.

Ms. Todd said is he talking about pond in Area 5?

Mr. Webb thinks he is talking about the sediment basins.

Mr. Jackson said we just got these plans tonight, so he is limited on what he is able to read. He is asking if they are planning on Phase 2 or Phase 3 to add another plunge pond or are you going to try to bring all the water to where Phase 1 is going to happen.

His main concern is noise. You say you are going to be inspected by State agencies and so on and so forth. He hopes they are not same State agencies that inspected around Duke and their waste areas, because if so, your bargaining stops.

He said is the Stalite going to be in his ground water? He has two wells on his property, is he going to have to worry about the quality of the water that he has? He knows he is going to have to hear the noise, just by the fact that you are taking away probably 1,000 or 1,500 or potentially 2,000 feet of woods, and taking out all those trees and you are doing that immediately, so that we have to deal with all the noise from Phase 1 all the way through Phase 2. Which, he understands now is some place between six years and forty years.

He said six years is a very tight schedule, certainly, you are not going to sustain that. But if he has to deal with it for four years, his property value decreases, our taxes will probably remain the same. He is not sure what benefit there is to the County to approve this.

He said the more he hears, the more concerned he is that you are just really taking away people's personal rights to privacy and quiet. We moved to the country for quiet. He understands that when he got the property Vulcan was there and he was willing to deal with that. But now, Vulcan is going to take everything out to within one hundred feet of our property, and cut all the trees making it more easier, making it dustier, making it dirtier, and potentially, pollute our water and that is his concern.

He is not generally concerned with Phase 1, putting in a plunge pool, because you are going to do that every level back, Phase 2, Phase 3, potentially Phase 4 or even Phase 5. If you were to go to Phase 3, putting in another plunge pool, that is more blasting, that is a lot closer to my wells and a lot more noise, potentially for people to have to deal with.

Mr. Webb can address some of these issues. He said these basins are all great, from the standpoint that they are filled on the lower side of the property and are designed to protect the adjacent property owners. He said from a runoff standpoint, there is no blasting on any of this property. For any of this field activity, there is no proposed blasting. From the standpoint of runoff and damage, there are no chemicals used in Vulcan's process to generate blasting. Basically, it is break big rocks and make smaller ones.

From the standpoint they do not treat this rock what is broken down in size, these materials that are coming across here are basically what is not sold as is created by the pit. From the areas in here, it is no different than a farmer putting dirt over on his property or building up higher. The materials themselves are inert materials.

Mr. Jackson understands you are in business, and he believes in free enterprise and so on an so forth, but at some point there is line, that when you step across, you are infringing on my rights as well. He wants to know what Vulcan is going to do to address that because he has had to deal with 30 years of probably twice or three times the decimal level of noise every time there is a truck backing up or a bulldozer backing up which is pretty consistent when you are moving

overburden. You are consistently moving trucks back and forth and dozers back and forth. He is concerned about quality of life issues and he is also concerned about the noise that this is going to create. If he cannot sit in his house and enjoy living in the country, why did I ever move there.

Mr. Dagenhart asked a question directed to Vulcan. Did he hear him correctly, that after you timber, you are going to build the perimeter berm first before you start the overburden process.

Mr. Webb said yes, there is a sequence for the construction of this placement which is part of the permit. It encompasses putting this material in here and getting it stabilized first. As they bring material in, they will place it here and continue in this direction (showed on diagram). From the standpoint of this timeframe, if it takes ten years to build this berm here, you will not be hearing a constant ten years of trucks because they are not moving material. That is why it is taking ten years to build areas; it is not material being moved out of the quarry. So, it would not be ten years of daily noise of that being constructed. This berm is being constructed based off the rate of having material coming out of the quarry.

The Chair asked for a brief pause here. Legal has asked that we go ahead and swear everyone in in this case. Based on how this discussion is going, we need to make sure that everyone is sworn in.

The Chair asked the Applicant, Staff and anyone who has spoken and anyone wishing to speak on this case, or to testify during this public hearing for this case, to stand, raise their right hand and be sworn in. The Chair administered the Oath to the speakers.

The Chair asked Mr. Webb if those erosion control devices will sort of be removed and reinstalled phase by phase and then eventually once the whole site is restabilized there will be no ponds remaining on the site except that existing pond is that correct?

Mr. Webb said that is correct, say this was Phase 2, that is the sediment basin. When we move to Phase 3, that basin has been removed and that area stabilized.

The Chair said we addressed the no chemicals. So, this material is just the unwanted, leftover stuff; is that a fair assessment? Once the aggregate that you are looking for is separated this is what happens to be left?

Mr. Webb said that is correct.

The Chair asked Mr. Jackson to clarify on the map where his home is located.

Ms. Todd showed where Mr. Jacksons property is on the map.

The Chair said Mr. Jackson has two properties where that pond is located on either side. He borders that whole Phase 3.

The Chair called on Ms. Jennifer Jordan.

Ms. Jennifer Jordan, 5160 Gold Hill Road East, Gold Hill, NC addressed the Board stating that she owns a property that is directly next to the site. She has an asthmatic child that has environmental triggers. The dust that we have now from the quarry, (she is approximately a mile from there now), does affect her asthma. We have gray dust throughout the house. When she vacuums the floors there is gray dust in her vacuum. She said this concerns me.

She said now we are going to have trucks bringing dirt directly next to my property. The noise is a huge issue. Even now, being as far away from the quarry that I am, you can still hear the trucks day in and day out. Now that they are going to be right next door, that is a big issue for me.

She moved to the country for a reason, to be in the country away from the noise. She is also a hunter and that is one of the reasons why she bought eight acres of property. This is going to affect the wildlife in the area that is next to her that she normally hunts. The animal disturbance is an issue for her as well.

She said forty-foot mounds of dirt is an eyesore and she does not think anybody wants that directly next to their property. They speak like forty feet is not a big deal, that is a huge deal and vegetation does not grow over night. It takes years for vegetation to grow, so that is going to be mounds of dirt just sitting there. If you go by the quarry now, you can see huge mounds of dirt and we are going to be driving past that and that is going to be right next to my property now. Which is going to affect my property value. No one is going to want to live right next door to this. She does not think anybody would want to live right next door to this.

She is also concerned about the site development notes, in Section 2B which says that the applicant reserves the right to timber the portion of this site located outside the 100-foot-wide perimeter. So, does this mean that the buffer, which is 100 feet, which again is not that large of an area. She said is that going to remain intact, or overtime are they are going to be able to mess with that as well, and cut down those trees or is that buffer going to be there still 100 feet, and like she said before that is really not a large area to be a buffer.

Another concern is in Section 5D, it says that the site mining permit is exempt from the Sedimentation Pollution Control Act. Why are they exempt from a Pollution Act? What does that mean if you are exempt from pollution? Does that mean that there will be an issue with pollution for our wells?

We have already had some issues apparently with water drying up and wells being affected. If this affects our wells, are they going to pay for a new well to be put on our property? They talk about controlling the runoff, but still that is years. It takes years for vegetation to grow, so how is the runoff going to be affective in the meantime. Those are her concerns and issues.

The Chair said we will readdress some of those. He has heard and he will ask the Applicant to

confirm, that all this water is going to be sent back to the pit. He asked the Applicant to clarify that that is indeed correct. He said number two, the exemptions to sediment and water control since you have a mining permit, but it also appears that you are providing some control for that disturbed area. He asked Mr. Webb to touch on that.

Ms. Todd said that Mr. Tony Johnson is the Environmental Engineer with Vulcan can address the dust and erosion control.

Mr. Tony Johnson, Environmental Engineer, Vulcan Materials, addressed the Board to answer the dust question/concern. We are regulated by Air Quality as well as Land Quality. Within our Mining Permit there is verbiage that requires us to keep the dust down. We use several methods and our primary method is our water trucks. They rotate around the site and water the hoe rows and all the piles and that sort of thing. If it is dusty, we take care of it.

The reason we are exempt from the Sediment and Water Control Act is because it is covered within the Mining Permit. We have more strenuous requirements under the Mining Act than the Sediment Control Act has; that is the difference.

He said that is why you see on the plans and the maps the sediment control measures are temporary. Once the site is stabilized with vegetation they are removed from site and those areas are seeded as well.

Ms. Todd asked how dust gets created on the overburden side and how would that be addressed?

Mr. Johnson said we vegetate the slopes almost immediately as we come up in lifts. The flat area, we take water trucks around the site and wet all the areas that are dusty, as well as hauling and transporting to and from the quarry.

He said the State comes out and makes periodic, unannounced inspections. That is Air Quality as well as Land Quality, they come out periodically, unannounced and make inspections. They are looking for all of things that you all are mentioning today, the dust, the runoff, sediment, and water control.

Ms. Jordan understands that they come out and do inspections, but they do not inspect my home and I see the dust in my home and that affects my child.

Ms. Todd does not know exactly where Ms. Jordan's property is located.

Ms. Jordan said she is 5160 Gold Hill Road.

The Chair believes she is just to the south, just below on the bottom here (showing it on the plan).

Ms. Jordan said yes, she is right next door to this property.

Mr. Webb said it would be below this adjacent property up here.

Ms. Todd asked Mr. Webb if the 100-foot perimeter buffer would remain intact.

Mr. Webb said the item that you are referencing, is basically to state that the 100-foot buffer will not be impacted. He wants to bring up the point about the 100-foot buffer, it is something that Vulcan is proposing to do, and it is not a requirement of the Ordinance. Under the Ordinance, they technically could move all the way to the property line in theory, and then come back and plant trees and shrubs in the spring.

Vulcan proposes to keep the area in its natural vegetation. He said providing a good buffer and streaming is more efficient to keep what is there than to come back and build a stream. There is no reason to disturb the 100-foot buffer. That is specifically excluded as part of this site project and it was also included in the Mining Plan because of their intent to keep there. The Mining Permit does not require a 100-foot buffer either. But Vulcan is proposing to keep this buffer on site.

The Chair said if they ever did want to go in there they would have to come back before this Board for an official action to get that approval. If this is approved that will be a condition of their approval and if something did happen, they would be in violation of their conditional use permit. If ten years from now they wanted to cut 50 feet of that 100 feet they would have to come back to this Board and ask permission to do that, they could not do that on their own.

Mr. Plasters said one additional comment in reference to the dust. We have a lot of regulatory scrutiny when it comes to dust. We take dust very seriously and that is something that we try to control in our operation to the utmost extent.

Beyond what Mr. Johnson said in regard to the water trucks, we have multiple thousand-gallon water trucks. We have over the road trucks and off the road trucks that we utilize to wet down places in our pit where we are digging, to keep our roads under control. We also have dust control measures at our finishing plant as well, so we have fixed sprays and things like that. There are vehicles travelling through our plants also and we are using different types of dust control measures in those areas to make sure the dust is suppressed in that area as well. We put a lot of control measures in place to control our dust.

He said another comment as far as the noise, he has heard that comment a couple of time. Obviously, from a safety and non-safety standpoint we are required to have backup alarms on our mobile equipment just because of the sheer size and scope. But, one thing that we can try is, there are various types of back up alarms on the market that are omnidirectional. If you are directly behind it, you could hear it but if the machine shifts one way or the another it will actually decrease the amount of noise exposure. That is something that we would definitely entertain trying, to try to improve those concerns.

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Ms. Morris said to address Ms. Jordan's' concern about the buffer and to expand on what the Chair said. The Ordinance itself requires that 100-foot buffer. Based on the size of the property and what is next to it, that is what it requires. So, they would not be able to come back and go into that buffer 50 feet. The only way that that would be possible would be if somewhere along the line our Ordinance was amended. But even if it was amended, one of the Staff conditions and the condition of the review itself is that they have to have that 100 feet. So, at this point if it is approved, that 100 feet is not negotiable it has to stay.

Ms. Jordan understands that, she would like for the Board to put yourself in our shoes, would you want to live next to this?

Ms. Todd does not want to lose site that the property is currently zoned Office Institutional (OI) which does allow by right, without any further rezoning, a variety of uses that includes colleges, universities, banquet halls, crematoriums and several other uses that this property could be put to. In fairness to Vulcan, this overburden storage is a natural area that will wrap the existing use and be beneficial to the adjacent property owners.

Ms. Jordan said in fairness to us though, she does not see a university going on the property where we are located. She would rather have a university than have all the noise. We will have to deal with it, we hear it from a mile away and with this right next door to us, it is going to be an issue.

Ms. Amber Wallace, 5020 Gold Hill Road East, Gold Hill, NC, addressed the Board (property was shown on the site plan). They moved out into the country for the tranquility and quietness of the property. When they moved in six years ago and built our house, the quarry was not as far down on the property as it is currently. So currently, from where we are, and she can image what they are all hearing. The noise is excessive, not just the backups but the driving alone you can hear through the trees. You can hear the beeping; you can hear the blasting; the whole house shakes.

We are further away than Ms. Jordan is. The dust as she was saying is excessive in the house and again, we are not as close as she is so, I can image what hers is like. The truck noise alone scares her kids when they are outside playing. So, if they are coming further down from where they blast now, then that alone is a concern that her kids cannot even go outside to play thinking there is someone in the woods trying to get them.

The well is an issue. The last few weeks we have notice the pressure being down in our well and our well is only six years old and that concerns us.

Mr. John Gomez, 5030 Gold Hill Road, East, Gold Hill, NC, addressed the Board. He lives south of the zoning, Phase 1 and 2, it is about 15 acres south of that. His concern is also for the kids in our community. Directly across from Phase 3 there are six boys all in elementary school or kindergarten. The next house down they have three children also in elementary school and my neighbor Jennifer has a child that has health issues. Ms. Wallace lives directly in view of what

will be Phase 1 and she has two children and you saw them; they are very young. We are talking about the future of the children and their health. He does not think that health issues for developing children has been looked at or addressed at all.

It was his understanding that one of the reasons why this was postponed was because Vulcan had not filled out the proper forms for water and erosion control and that was one of the reasons why this had been postponed once before.

We have lots of family members within 100 feet of that proposed buffer zone. It is going to be changing, you said that. Everyone that is here, he is sure has a comment as to the noise levels. You said it was from 7:00 to 4:00 but he believes it is from 6:00 to 8:00, and sometimes they work nights and we can hear the equipment running at night. Those are all the issues that we are not comfortable with as stated.

Mr. James David Miles, 4925 and 4701 Gold Hill Road East, Gold Hill, NC, addressed the Board. He is concerned with their wells going out. We have 120 acres there. We hear the blasting all night and we see the dust a lot.

His mother's concrete is broken all up from the blasting, that is an issue alone. He does not know what kind of rating he got on that as far as distance goes. We can definitely feel it. He thinks that if their wells go dry that Vulcan should have to pay for it and get us new wells drilled.

The Chair said those are all the blue cards that he has. He asked if there was anyone else that wants to speak and has not completed a blue card. There being none, the Chair said before we close the Public Hearing is there anyone on the Board that has questions for Staff or the Applicant that we need to ask now.

Mr. Paxton has heard a lot of talk about these wells. How would this if any affect someone's well?

Ms. Todd said there would be no affect.

Mr. Johnson said we will just be placing the material over there and it will be above ground. We are not even disturbing the stumps. We will be placing the material over there, so the wells will not be affected.

Mr. Paxton heard about the noise level. He asked if they are regulated or controlled by the density of the noise or can you only meet certain decimals?

Ms. Todd said the mining permits and some of the other regulations do have limitations on dust and noises for the site.

Mr. Plaster said there are some regulations pertaining to protecting the safety of our employees because they are in close proximity to that equipment. From the noise hazard standpoint, we are protecting our people. It is not going to be hazardous obviously, even though people here tonight have expressed that they can hear it, but from a hazardous standpoint, our noise levels, we are keeping them low preventing our employees from long term exposure.

Mr. Jon Jackson said you say that we are not going to have any more explosions, but when you take away all the trees that are between her property and you take that down to 100 feet, the noise level is going to expeditiously rise. He does not care what you say and how you regulate it. You are not telling us how many decibels it is going to be and how much greater the noise is going to be because there is no buffer between us. You talk about 100 foot; I can spit 100 feet downhill. But, to have a minimum or maximum of 100 feet of buffer between her property and her child, her child, and their quality of life.

You can say all you want that it is not going to be affecting us. He invites any member of the Commission who would like to, to come and stay in his house for eight hours and listen to the noise.

He is not saying that they should not be in business. He is saying we need a much greater buffer than 100 feet. The vibration from the explosions when you blast, it shakes his house. He is probably close to a mile away from where the explosions are happening. It literally shakes my house, pictures move on the walls, I can feel it. It shakes his bed; the earthquake did not shake his bed as bad as some of your blasts.

Again, you are not going to be blasting any worse, or any place on these three or four sites, whatever you choose, but the noise is going to carry further, and it is going to be much louder and you are not really addressing that.

As far as the wells, everybody is talking about losing wells. He is concerned about losing his well as well. But it is not because of what you are going to do in these three phases or four phases, it is what you are doing now that is already affecting our wells. All he is complaining about is the fact that it is going to be that much nosier, that much dustier, and that much more for us to deal with. We have dust and noise and stuff already and when you take away the natural buffer that we already have and do it away immediately, for potentially mining or potentially putting overburden 15 years down the road, you are killing us.

Our property values will plummet. He could go potentially from maybe a quarter to half a million-dollar property, to something he would have to get 100,000 dollars for because he could not possibly sell it with all the noise and the dirt pile right behind my property.

He wants the commission to take that into account whenever you make a decision on this because all these things affect our lives, they are not going to affect your life, it is not going to affect the attorney's life. It is going to affect our lives and he wants the Board to take that into

consideration for the people who bought property in the County to get away from noise and confusion and everything that is happening around it.

Ms. Jennifer Jordan would like for the Board to take into consideration why we live where we live. We did not want to live in a big city with a lot of noise. Where we live now, we knew Vulcan was there and we knew there were some issues that we would have to deal with. We did not realize they were going to be our next-door neighbors. We would like for the Board to take into consideration that we moved to the country to not live near a construction site. This really will affect us and please take that into consideration.

Mr. Chris Pinto asked what they did with the overburden now.

Mr. Zach Plaster said the overburden that we do now we haul on site. The actual disposal land is adjacent to this property right now as we speak. As you can see there is an area where we are stockpiling now and put it on the site.

Mr. Pinto asked if they ever hauled it offsite.

Mr. Plaster said no, we have not hauled offsite. He showed the area where they place the overburden right now.

Mr. Pinto asked how long they had the 138 acres.

Ms. Todd believes it was purchased in 2017.

Mr. Pinto said what is the overburden? Does that come from Stalite, what is that all broken down, is it rock?

Mr. Plaster said yes, it is rock. Like he said earlier, the material that we supply Stalite is very specific geology. It is a meta hard like material, but everything that is in our geologic deposit that we mine, is kind of in there in streaks and little veins, so anything outside of that is what we have to dispose of; it is just rock and soil.

Ms. Todd would like to correct her statement; the property was purchased in 2015.

Mr. Pinto asked Ms. Morris where did the OI come from?

Ms. Morris said that OI designation came from the Leak-Goforth Study. It was property where 100 or more acres could be assembled for uses that would be related to employment. It was put into that OI zoning designation as a holding pattern, so that entities would have to come to the Planning and Zoning Commission and ask for it to be changed. If they wanted to try to place any type of use, there that would not be consistent with that transitional district which means residential and some other type of use.

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If the Board remembers, the OI district is intended to be a transitional district, it would be located between residential and commercial or industrial or employment.

Mr. Pinto said is that like the Hill Farm situation?

Ms. Morris said yes, that was part of that 100 acres or more that was identified in that study due to the 52 corridor, the utilities being located there. The utilities have not been extended like they thought they would be. Also, with that small airport being located there and the rail.

Mr. Pinto asked what it was before that?

Ms. Morris said her guess is that it was probably consistent with the AO zoning or whatever the zoning was that was similar to that at that time.

Mr. Paxton said if the appraiser is here tonight can she make a comment with regard to land values.

Ms. Carol Lomax Fortenberry, MAI, Fortenberry Lambert Inc., 1213 W. Morehead Street, Charlotte, NC, addressed the Board stating that she is a Commercial Real Estate Appraiser and Consultant. She has worked many years on Impact Studies for properties like this for rock quarries and not just for Vulcan.

As part of her research she looks at articles and publications about impact on property values, particularly home values because that is one of the bigger concerns. The studies consistently show a mixed reaction or mixed result as to impact on property values. If a quarry is proposed, that seems to have a bigger effect than one that has been there like this one for a long time. This one has been there for 60 years and in that case, it is pretty consistent that it did not impact property values and they continued to rise.

She did a study of all the assessed values around the quarry and this subject starting back with the last three re-evaluation years, 2020 being the latest, 2016 before that and 2012. She noticed, that the OI properties, particularly some of those values for 2012 and 2016 seemed to decline a little bit, with some exception. She called the accessor and ask why, they said they made somewhat of a unilateral decision to lower those values of those properties to be more consistent with what was in the area or how it was being used, which was mostly vacant land. Almost all the AO zoned properties increased.

She did an average of all the properties that surrounded the quarry and the subject and overall, the average, they all increased every assessed value. She also found an apparent sale in the area, there was a sale that occurred in 2014 and it resold in 2017 and there was quite an increase in value and that is while the quarry has been operating. She really did not find any concrete evidence that there would be negative impact on property values. She also looked at historic sales all around the property or sale data, there was just no evidence. The property values have

been increasing in that area for the last five years, based on the MLS that she looked at and the other publications that she looked at.

We have done this to say that a rock quarry, which she thinks typically these things are considering one that is going to have excavation on it would impact property values. In this case there is to be no active mining activity. She understands there are trucks but there is to be no mining activity which is a lesser impactful use in her opinion.

The Chair said what we have heard from the residents is that they understand what they are dealing with today. There are some disturbances, minor to moderate if you will, but they understand what they have today.

He thinks the fear that he hears is what is this going to do. He did not hear Ms. Fortenberry say anything. This quarry is where it is right, it has been there a long time and some of these houses have been there a long time. But, none of what you just said talks anything about having this brand new 40-foot pile of dirt, 100 feet from their house. Again, he appreciates what she has said, and he agrees based on what is there now. But, can you make any comments on this specific project, what they will go through, what property values will do if somebody tries to sell their house in the middle of Phase 2 and they live 150 feet from an active site verses maybe when it is complete. He asked if she could comment at all on what may happen in the future.

Ms. Fortenberry said again, the studies show and what she has found here, that the property values did not decrease abutting the actual quarry. She feels this like this use will be less impactful. The 40-foot height she believes will remain below the buffer. She said maybe someone from Vulcan can say that, but it is not going to be sitting like a mound of dirt out in the middle of a cornfield. It is going to be buffered and then it will become as natural as the site as it is today.

She understands there will be some construction for a short period of time, but she is basing her information on data that she has and on sales that she has that say there really has not been a decreases in values for properties surrounding the quarry.

The Chair would add that short is a pre-existing word to use there.

Ms. Fortenberry said that is probably not accurate but at 40-feet.

The Chair said he has heard 30 to 40 years depending on economics, right? Those little girls in the back will have their own little girls in here, that is potentially a long time. He appreciates her comments, but he just wanted to clarify that.

Ms. Fortenberry said she would reach back to the pictures of the other overburden and that gives you an idea of what it will look like.

Mr. Jackson said that could be 60 years from now when we have vegetation growing back on. What we are talking about is the short term.

The Chair said let Ms. Fortenberry finish and then Mr. Jackson can come back to the podium.

Mr. Brent Rockett has one follow-up based on what she just said. You showed the pictures of those example sites; can someone out there give us some indication as to how long those sites have been completed to look the way that they look now. How long has those other overburdens sites been in existence and what was the time frame there?

Mr. Plasters said there was one referenced for Rockingham. That was built within the past two years was a recent construction project. The one in Stafford he is familiar with that project and that was completed around 2015. The vegetation that you see on it was not easy when we vegetated, what you see in those pictures. He said you want to get that grass on there as soon as possible as Mr. Johnson mentioned previously, to prevent erosion and to make sure it is all under control, even if it is being sent back to our site, you still want to make sure you control that erosion. We get that vegetation on there quick. Those are the two projects; he cannot speak on the other one.

Mr. Rockett asked if he could compare the total size of those projects with the 138 acres here?

Mr. Plaster said does not have the exact amounts, he knows there is vegetation on there and it takes a couple of years.

Ms. Fortenberry has seen the Rockingham Quarry within the last year and she believes it is larger than this one.

The Chair called on Mr. Jackson to ask his question or if he needed clarification for what he is looking for.

Mr. Jackson said with all due respect to Ms. Fortenberry, she seems like a wonderful lady. She knows what it is going to do when it is finished, when it is all completed, and you have vegetation growing and there are trees and there are little birds chirping, and that is wonderful. But what is it going to do to us in the meantime?

He would invite the Commission to go look at their current palace. What do they look like, because that is what we are going to have to deal with, not 30 years down the road or 20 years down the road or 10 years down the road. What are we going to have to deal with in that interim? It will be wonderful when it is all done, and it looks like a big hillside and that is great. But in the meantime, we have to deal with dirt, not trees, not vegetation, not nice grass and knolls and stuff like that. We are going to have to deal with all the dirt, the dust and the filth that comes along with it; not to mention the noise.

He asks the Commission to take a ride down and see what their current facilities looks like because he does not care what Rockingham looks like now. He cares what Rockingham looked like ten years ago or five years ago when they were in the process of building this big palace there, what did it look like then. How can it possibly not affect our property values in the short term? If I decide to sell five years from now and they are in Phase 2, he guarantees his property will not bring what it will bring after it is all done or what it is worth today.

He asks the Board to check on what it looks like in the interim as close to what it looks like current. When you are building a building, it looks wonderful when it is all done because the landscaping and everything in. When they are building it, there is an awful lot of disruption to lives around that particular construction site.

It was mentioned they could put any number of buildings next to my property and that would be fine, it is already zoned for that. He could go for buildings more so then the noise and confusion. It is going to be continuous; it is going to be five, ten, fifteen years. He does not understand how you can say that it not going to affect our lives because we are the ones who are going to live it. You are going to live in Charlotte, downtown Kannapolis or Concord or Albemarle. It is not going to affect your lives like it is going to affect ours.

Mr. Pinto asked if all the trees that they are going to be taking down pine trees. He asked if the picture he is looking at from the winter and does that mean that everything that we are looking at on that site is pine or hardwood?

Mr. Webb said the area that you see in heavy green in the aerial photo, this area through here is primarily pine (showed the aerial). These areas that are not as dense is a little bit of pine and a mixture of hardwood and if you move up into this property you have more hardwood then pine mixture, 50/50. This appears to have been planted area, that was previously timbered at one time and replanted with pines

Mr. Pinto asked if Mr. Webb knew how old they are.

Mr. Webb said at least 30 years, it is ready to go; it is time to come down.

Mr. Pinto said that is a profit, but people are not going to be seeing that. That stuff acts like a filter.

Mr. Webb said from a timber management standpoint, from the property standpoint.

Mr. Pinto understands that, but he is talking about what they are talking about. He said that acts like a filter of some sort, for dust he would think, and that thing is about 40 feet, right?

Mr. Webb said that is in the right range.

Mr. Pinto said need to put something else there in his opinion. He does not know what but staged or something; that is his opinion.

Mr. Paxton said when we talk about these 100-foot buffers, how was that decided? Why couldn't you say 150 or 200 or 10? How did you determine the 100-foot buffer?

Ms. Todd said the Ordinance itself; based on the Ordinance, when we submitted our application it required a 75-foot buffer around the perimeter. We provided a 100-foot buffer because it matches the rest of the existing quarry. We have also exceeded substantially the quarry along Gold Hill Road East. We have exceeded she thinks by threefold the width required for street runoff.

Mr. Paxton said this overburden, the exact amount is 40-foot high berms. Will they take up the whole 138 acres or will it be 10 acres? How much of that will be 40-foot mounds?

Ms. Todd does not know exactly.

Mr. Webb does not have the number in front of him, but the area north of the site, Area 5, is roughly 25 acres. You take out that and you take out the 100-foot-wide buffer around the perimeter, so every 400-foot buffer is roughly another acre lost to that. Everything inside the areas that are marked 1, 2, 3, 4 will be filled.

The Chair asked if Ms. Morris had clarification on the buffer.

Ms. Morris said the buffer requirement is listed in the Table and there was also a standard listed in the mining comments for the earth extractions. This has been a point of contention for Ms. Todd because the text was referencing one buffer, the other was referencing something else. We consulted Legal and they said the correct way to approach it would be the 100-foot buffer. So, Ms. Todd did change that and submitted the 100-foot buffer which is the minimum requirement.

To your point Mr. Paxton if the applicant wanted to have a bigger buffer they could. But most people tend to choose the minimum standard when submitting a development application.

Ms. Todd wants to point out that the performance standards for the Quarry under the old Ordinance did say 75. She had not heard the interpretation of 100 but we did provide 100.

Mr. Jon Jackson said 100 feet is basically nothing. He appreciates that Vulcan said that they would be gracious and do 100 instead of 75, because we could stop but we are going to make you think that we are being kind to you.

He does not think the official spokesperson gets this, but he has gone from ambivalent to darn near pissed off by the lack of any concrete answers from Vulcan as far as what this is going to do to my life.

He understands you are in business; you want to make money and he wants you to make money because you are going to hire people and that is a good thing. But in the wintertime when the leaves are off those hardwoods, 100-feet is nothing. Pine needles do not absorb like leaves off the trees. In the summertime, we are going to have a lot of quiet, because we are going to have the trees but at the same time in the wintertime, you are still going to be working five days a week and we are going to deal with a higher level of noise.

He wonders if the Commission could Table this, give us an opportunity to look at the plans a little bit more so that we understand what is going on. They had forever to prepare; they have the legal team all lined up and they have the commission already thinking along the lines that yeah, this sounds like a good idea. From what he hears from the Commission, and he is not trying to put words in your mouth, but maybe take some time and let us see what we are dealing with because there is an awful lot of information in that packet and we had 15 minutes to look at it. (The rest of what he said is inaudible because a child was crying).

The Chair said with regard to the 100-feet, fortunately or unfortunately, this Board is very aware of a 100-foot buffer. We have been onsite at a project several times and we assure you that we understand the challenges of existing vegetation buffers. We understand the sensitivity of 100-foot existing vegetation buffers. We are probably more familiar with that than anything else.

Ms. Todd asked to make a brief rebuttal.

The Chair said sure.

Ms. Todd wants to point out that the existing quarry has been in operation since 1953, on this site. Vulcan has operated this quarry since 1988. We have heard a lot of concerns here, and a lot of comments regarding blasting, regarding wells, dust, and noise. Those are all related to the existing quarry operation. It is not what is proposed for the site that we are requesting a conditional use and approval for today. She wants to really reiterate that.

As all property owners have the right to timber, so does Vulcan and we are providing these buffers. She knows that Vulcan is very sensitive to its neighbors and is more than happy to discuss the issues that were raised with regards to the existing site.

She said Ms. Denise Hallet is here and she can speak with property owners who might have issues with regards to blasting or noise and things like that. As Mr. Plasters mentioned, we are prepared to use white noise alarms on our systems if that would be helpful for the overburden storage hauling.

Again, we do have an impact study where Ms. Fortenberry made an analysis, looked at properties adjacent to the existing active quarry, and determined that property values are increasing there, even for match per sales. It would stand to reason and as she indicated in her affidavit, that for a passive use such as this, it would certainly maintain or even enhance the

value of the adjacent property owners on the other side of this site by creating an actual buffer and further protecting them from anything created by the existing quarry.

The Chair closed the Public Hearing.

The Chair reminded the Board that there is a reason why this is project is before us. It is because they needed to change something, and it is this Board's decision whether we are going to allow this to occur. This is a conditional use which means this Board can offer any type of conditions should the applicant accept those conditions. If there is something in your head that you do not like that you would like to offer as a condition, we can propose that condition and the applicant can make a decision whether they except that condition or not. If the applicant does not want to except those additional conditions, then this Board has the decision whether to approve or deny with the conditions that have already been set forth.

The Chair said Ms. Morris said the word transition. We talk about zoning and land use, we talk about transition a lot, from heavy uses to lighter uses and sort of a transition between those uses to make sure that there is not this big butting of heads of uses right next to each other. What he feels here is we are hitting that butting heads point. He thinks there is a part of this site that can be used for this purpose that he would be comfortable with. He is not so concerned about buffers because those trees can be cut down tomorrow. This Board does not control that, and he asks that everyone in the audience understands that. If this is denied the owner could move forward with clearing every tree on that property and there is nothing really that anybody can do about that.

Our job is to make sure the use of those properties is compatible with Land Use Plans, with surrounding uses and he feels in his head that it should provide that transition from those heavy industrial. He is not so concerned about the noise, the temporary noise; whatever the word temporary is in this case, it may not be temporary it may be long term, but from the actual activity.

He is a little concerned, we have heard from property owners that already have noise and we have acres and acres and acres of trees between them and the existing site. He is really concerned more about long term, once those trees are gone, the noise from the existing site increasing dramatically.

He does not know much if anything about the operation of this mine, what their compliance history is. If he trusts what these individuals have said tonight that there are dust issues existing. So, when he hears someone say there will not be any dust from this he questions. If we cannot control the dust now at times, he won't say that is a recurring problem but apparently it is a problem at times. Then when we are 200 feet from somebody's house and we have these big rock trucks running on gravel dirt roads, he cannot imagine we are not going to have that problem tenfold.

As Mr. Pinto pointed out, once all those trees are gone, that dust is kind of getting caught, where does that dust go now? He does not say this to disparage the operation. Again, he does not have

firsthand information to know how that operation runs but it is this Board's responsibility, he feels, to make sure that we are allowing things in areas where they should be occurring.

If anyone has any other conditions that they would like to propose we will entertain those or if you have any other comments.

Mr. Paxton is concerned too. He asked the applicant if they had any interest in increasing the buffer size. If it was accommodating and at what level does it need to be efficient or to serve the purpose.

Ms. Todd said we would be glad to discuss.

The Chair said his goal here is to figure out how to get the use you want at a place on that site that mitigates a lot of the things that we heard. He feels the site plan as presented, even with the conditions that are proposed, does not get us where we need to be.

Ms. Todd said are we in a position to continue this hearing or to table this so that we can have a discussion?

The Chair believes that is an option; before we would do that, he would like to give everybody a chance to speak so that we understand all the issues that folks have.

Mr. Dagenhart said it might be in the best interest to table and let the two parties discuss offline to see if they can come to some agreement and then present something back to the Board later. That might be a better solution.

The Chair said before we table, he would like to see if there are any other remaining issues, let's go ahead and get those out so that they understand what we are asking.

Mr. James Litaker is concerned with what we are going at, but let's look at the worse scenario. If they went in and timbered everything and then come back and ask to do this project, and we will give you a 40-foot berm; there are no trees. He would like to see a larger buffer area himself, but is that something that we have to give them a little bit of credit for too? They are offering more than they have to.

The Chair said sometimes you have to except something to mitigate other unknowns.

Mr. Litaker said correct, he wants the dust issue resolved and he would like to see a bigger buffer too, but you have to give them a little credit for trying to give more then what they really have to. We have gone through this on some solar farms that he is highly irate about. He thinks this company is trying to be a better neighbor than Duke Energy and the Solar Farm. He is not belittling them, and he thinks they are going the extra mile to try to help. If we could table this and work out something that is comparable and compatible with the neighbors; he is all for that.

Mr. Dagenhart said did we not hear from Staff that Legal made a determination that the 100-foot buffer is required anyway? That they did not go above what is required, that the 100 is what is required by the Ordinance.

The Chair said sure, but this is a Conditional Use and we have the ability to ask.

Mr. Dagenhart understands that, but what he is saying is that they are not going above what they are required to meet, the current plan.

Mr. Richard Koch, County Attorney said in the Ordinance there two different spots that talked about the buffer for this type of project and they were inconsistent and that is what we had the discussion about. We decided internally that the larger buffer was the one that needed to be followed for this and that is what Ms. Todd is talking about, she saw that inconsistency. But we decided internally that it should be a larger number than what was in there, that is what it all amounted too. There are two ways to look at it because of what was in the Ordinance.

Mr. Dagenhart said it is a correct assumption that when they acquired this property versus when the forest started growing, they acquired the quarry in the 80's that the 75-foot may have been the buffer?

Mr. Koch does not know about that.

The Chair said the question is are they at the minimum buffer or not, are they over the minimum buffer. He thinks he heard that the applicant feels that they are a little bit over, and Staff feels that they are at the minimum.

Mr. Pinto said 100 feet of hardwood is different than 100 feet of red cedar; red cedar is your friend in situations like this. In his opinion it gives you a wall, it gives you a net, gives you a filter and maybe a little noise abatement in the winter from when the leaves fall in October through March, that is when the noise carries more and you have nothing stopping it.

Mr. Rockett said that is predominately what is on that west side and south side of the property, is the cedar right?

Someone said pine.

Mr. Rockett said that is the existing pine, okay.

Mr. Pinto said probably loblolly.

The Chair said we have been through this before and we have seen the pictures of somebody in the woods at 100 feet and we say oh there is 100 feet. Well, when there is only 100 feet there that

picture looks a lot different. We have been through this before and he appreciates you doing that but unfortunately, we have learned our lesson the hard way on that one.

The Chair asked if there were any other comments. He said it sounds like there is some support to postpone this vote. He asked if there was any other information that we need to provide the applicant on what our concerns are?

We have buffer as it relates to noise and dust and everything. We are sort of looking at buffering as being our main concern, is there any other issues beside the buffering in general?

Mr. Wise has a question for Vulcan. If this project was decreased in size, does that mean that trucks are going to start coming offsite hauling the waste immediately or in the next five years? Are you all completely out of room right now if this expansion does not get done?

Mr. Plaster said we need to make this happen the sooner the better. We could do that very soon.

Mr. Wise said there could be a lot of traffic leaving the quarry here very soon.

Mr. Plaster said correct.

The Chair said we have had our comments. He believes the applicant is amiable to tabling.

Ms. Todd said yes.

The Chair said we will entertain a Motion to Table until June or the next scheduled meeting.

There being no further comments Mr. James Litaker, **MOTIONED, SECONDED** by Mr. Stephen Wise to **Table** RZON2021-00001 until the next meeting. The vote was unanimous.

The Chair asked if there will or will not be a public hearing at the next meeting?

Ms. Morris said the public hearing has been closed. So, what the Board will be considering at the next meeting would be whatever Vulcan brings back to them. You will move forward from that point. Where everybody had their three minutes this evening that part of the hearing is closed.

The Board will deal with whatever is in front of them at the next meeting to see if they can come to a resolution with the information that is before them. There will not be another ad, the sign will stay up, but you will not receive another letter. So, if you want to hear that part of this discussion, at this point we think we are potentially going to be able to have a June meeting. The issue is this room has been booked for June 8th, so it may be June 15th.

She said it sounds like you all kind of know each other, if we could maybe get one or two representatives, and take your phone numbers, we can let you know. We think it may end up

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being the third Tuesday, June 15th. If we could get a couple of contacts so that we can have someone who can let the rest of the neighbors know when the meeting is, that would be great.

Mr. Jackson said for clarification here, you are saying that Vulcan has the right to come back and tell you what they are willing to do but we do not have the right to come and tell you what we are willing to except. Is that what you are saying?

Ms. Morris said, what we are saying is that the Public Hearing portion of this meeting has been closed. Vulcan has agreed to go back and look at their plan. Based on what the Board has said, they want Vulcan to talk to you all (the residents), to come back with a plan that is acceptable to both parties and then present that to the Board.

The Chair did confirm with legal; the Board can re-engage you guys in questions and discussion outside the Public Hearing, you just won't have an official time to present. He assures you that those of you who spoke or any of you, as we go through this process we will likely call on you and let you have a moment to discuss the new plan. It just won't be in the official Public Hearing part of the meeting.

Mr. Jackson said fair enough.

BREAK TO CLEAR OUT THE ROOM AND CLEAN.

The Chair asked for a motion to have Mr. Hudspeth reseated to the Board.

Mr. Brent Rockett **MOTIONED, SECONDED** by Mr. Stephen Wise to have Mr. Hudspeth reseated to the Board. The vote was unanimous.

The Chair introduced Petition: RZON2021-00002, request to rezone from Countryside Residential (CR to Office/Institutional (OI). The Owner/Applicant is Flowes Store Volunteer Fire Department. Located at 8601,8623,8635 and 8647 Flowes Store Road and 8600 Bethel Church Road. (Pins: 5536-57-2146 and 5536-56-2931)

The Chair asked the Board if anyone has a conflict of interest or any information that needs to be shared about this case at this time. There were none. The Chair called on Mr. Phillip Collins to present the Staff Report.

Mr. Phillip Collins addressed the Board presenting the Staff Report for RZON2021-00002. The subject property is 3.817 acres. The existing zoning on the subject property is CR and the Applicant is proposing a change of zoning designation to OI. If the request is approved, all uses permitted in the OI zoning district would be permitted on the subject property. The subject property is currently occupied by a Volunteer Fire Department that has been in existence since before zoning was originally applied. The adjacent land uses to the north, south, east, and west are residential and surrounding zoning in all directions is CR.

The Ordinance states that the OI district is intended to accommodate relatively low intensity office and institutional uses at intensities complementary to residential land use. This district serves as a transitional district between residential land uses and higher intensity non-residential land uses.

The Ordinance states that lands in CR district have a strong rural, pastoral feel. Natural environmental elements such as tree lines, small ponds, rock formations, and manmade elements such as pasture fencing are to be retained, if at all possible. Although the area is capable of handling higher densities of development, development is kept at very low overall densities. Development includes only the standard single family detached dwelling.

The subject property is located within the boundary of the Midland Area Future Land Use Plan (Plan) and is planned for Countryside Residential uses. The Countryside Residential district of the Plan emphasizes a strong rural, pastoral feel. Natural environmental elements should be retained if at all possible. In these areas, density will be kept very low. Development will include standard single family detached dwellings, other more intense forms of residential settlement such as townhouses are permitted as long as site sensitive design occurs. Cluster development standards are required.

Although the recommendation of the Plan is for residential uses, the subject property is currently developed with a Volunteer Fire Department that provides the surrounding residential areas with fire protection services. The rationale of the OI district states that the OI district is for low intensity office and institutional uses that can be complementary to adjacent residential land use.

The proposed rezoning is not consistent with the Midland Area Plan. However, the subject property supports an existing volunteer fire department which was constructed prior to county zoning. The property currently has a residential zoning designation.

A volunteer fire department is considered a public use facility. Public use facilities are permitted in the residential CR district as a conditional use and permitted by right in the OI district.

The proposed zoning change to OI supports the by right use of the property as a volunteer fire department and allows the existing non-conforming use to better comply with the zoning ordinance.

The proposed zoning change from CR (residential uses) to OI (office/institutional uses) would provide greater flexibility in site design (signage, impervious area, reduced setbacks, etc.) and use of the property, as demand for service increases.

He said if you looked in your packet, there was map that showed the impervious areas, the OI zoning is more flexible with that.

This is a conventional rezoning request; therefore, all uses permitted in the OI zoning district would be allowed on the subject property if approved. The Planning and Zoning Commission should consider all the information provided and determine if the proposed rezoning is consistent with the Commission's vision for this area of Cabarrus County.

The Chair asked if there were any questions for Staff at this point. There being none, the Chair called on the Applicant.

Mr. Joey Houston, Fire Chief, Flowes Store Volunteer Fire Department, 8623 Flowes Store Road, Concord, NC 28025 addressed the Board stating they are requesting a rezoning from Countryside Residential to Office Institutional. What brought this about is we received a FEMA Grant for Firefighter Improvement and Retention. One of the things that we can get with the grant is a new LED sign to put out front. We checked with zoning to see if that was allowed under our current zoning and it was not. They suggested that we rezone to Office Institutional which would allow us to install the new sign and it is also fitting for a fire department. Several of the new fire stations that have been built in the County have that same designation.

The Chair asked if there were any questions for the Applicant. There being none, the Chair opened the Public Hearing. There being no one speaking for or against the rezoning, the Chair closed the Public Hearing.

The Chair said this a straight rezoning and we have two things here. We have the rezoning and we have the consistency statement and those comments will be similar. The Chair opened the floor for discussion.

Mr. Paxton thinks this is in the public interest that we approve this because where the Voluntary Fire Department is, it is important. If this will allow them to have a new sign, he thinks this is something we need to do.

The Chair thinks we heard that this is currently a nonconforming use, and this will bring it into better compliance with the Ordinance on an existing use. He said in CR this would be a conditional use and in OI this would be allowed by right. So again, a much better district for this facility to be in.

He said while it is not consistent with the Midland Land Use Plan, there is an existing use on the property that exists prior to zoning and the use of that property will continue so it makes sense to address the nonconforming at this time.

The Chair said at this point we will be voting on the rezoning. We will entertain a motion to approve or deny the request based on the discussion and the reasons stated.

Mr. Adam Dagenhart **MOTIONED, SECONDED** by Mr. Brent Rockett to **APPROVE** the rezoning request for RZON2021-00002. The vote was unanimous.

Consistency Statement

The important use of this facility at this location, the better conformance with the Ordinance, while it is not consistent with the Midland Land Use Plan, this is an existing use that existed prior to zoning. It is a public use facility which is permitted by right in OI without a conditional use. It will provide flexibility for the signage, for the setbacks in the impervious areas based on the use that they currently have. It is reasonable and in the public interest to allow this facility to continue to operate and to address the inconsistencies of the current zoning.

There being no further discussion, Mr. Brent Rockett **MOTIONED, SECONDED** by Mr. Adam Dagenhart to **APPROVE** the consistency statement. The vote was unanimous.

The Chair introduced ARCH2021-00001, Design Review Committee review for proposed change of use (Residential to Contractor's Trade Shop). Applicant is Carlos Moore Architect acting as agent for Center Point Builders. Located at 2976 Lane Street (PIN:5633-79-8744).

The Chair asked if there were any Board members that has a conflict of interest or any information that needs to be shared about this case at this time. There being none, the Chair called on Mr. Phillip Collins to present the Staff Report.

Mr. Phillip Collins presented the Staff Report for ARCH2021-00001, Design Review. The existing zoning on the subject property is Limited Commercial The site is currently occupied by a single-family residence and a detached garage. The subject property lies within the protected area of the Lake Fisher Watershed and is approximately .79 acres.

The purpose of this request is to convert a property that has historically been used as a single-family residence into a Contractor/Office. The proposed project includes the removal of an existing accessory garage and construction of a new garage that will be used as a showroom, on the opposite side of the existing residence. The existing house is also being renovated with an addition to the front and back porch areas. According to the site plan submitted the setbacks have been met for both the existing and porch structures.

The Applicant is proposing 5 parking spaces, including 1 handicap space which meets the parking requirements of Chapter 10 of the Cabarrus County Development Ordinance.

The parking requirements of Appendix B encourage parking to be located to the side and the rear of the proposed structure. The proposed parking area is located to the side of the existing residence which is proposed to be the main office area. The proposed garage/showroom, however, would be located behind the parking spaces.

The Applicant states that the placement of the parking is due to the existing septic field in an attempt to limit the amount of impervious area on the property.

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The Ordinance states that parking lots shall be designed to allow pedestrians to safely move from their vehicles to the buildings and that a paving material different in color and/or texture from that of vehicular areas shall delineate these pedestrian travel ways and shall be clearly marked. The applicant states that the parking lot area is proposed to be concrete and a brick or stone paver sidewalk will lead to the entrances.

Parking lots shall be adequately screened from public view and shall include landscaping and buffering per Chapter 9 of the Ordinance. The parking area will be screened from view of the property to east by the existing residence. Screening from the public right of way will be provided by the proposed thoroughfare buffer. Screening from the properties to the west and south will be provided from the required landscape buffering and existing landscaping.

The Applicant has submitted a landscape plan that meets the requirements of Chapter 9 of the Development Ordinance. A majority of the property boundaries have existing landscaping that meets the planting requirements of a level two buffer yard. The applicant is proposing to supplement existing landscaping and provide level two buffering where existing landscaping is not sufficient or does not exist.

The Ordinance states that all non-residential uses shall provide proper lighting for security purposes while not diminishing the quality of any surrounding residential uses. The applicant states that there are recessed can fixtures in the ceiling of the front porch along with an emergency egress light over the exit door. The rear door also has an exterior emergency egress light fixture and there is a motion security light at the rear of the structure. There is no proposed parking lot lighting.

The Applicant is providing a space for loading and unloading to the west of the proposed garage/showroom and states that there is existing landscaping to screen it. The space is situated so as to limit interference with street traffic and internal driveways. The space provided is 12’ x 40’ in size which meets the dimensional requirements of Chapter 10 of the Development Ordinance.

The Ordinance requires solid waste storage areas to be located to the rear or side of the structure, not be located in any applicable planting yard and be screened from any street and/or any residentially developed or residentially zoned property.

The Applicant states that all solid waste will be contained in roll out containers and the containers will be screened from public view or placed in rear.

The Ordinance requires all rooftop mechanical and electrical equipment to be screened from view from all public streets (existing and proposed) and adjacent properties. The Ordinance further requires the incorporation of design elements and landscape materials to provide additional screening and/or softening of equipment areas located on the ground.

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The Applicant states that HVAC unit is located at the rear near the back porch and is hidden from public view.

The proposed structure will not exceed the required height restrictions of Chapter 5 of the Cabarrus County Development Ordinance. The applicant states that the height of the existing residence is 22' and the proposed garage /showroom will be less than 20' in height.

The Ordinance requires that roof forms be compatible with the architectural character, scale, and height of surrounding buildings. The applicant states that the existing roof form responds to the existing context in the area. There are two gable intersecting roofs with a single slope porch roof. The proposed garage roof is a hip roof and will relate to the size and scale of a typical garage and the context.

The Ordinance requires that the first floor of buildings be designed to encourage and complement pedestrian-scale interest and activity by the use of transparent windows and doors on all building walls facing any street right of way.

The Applicant states that all windows and entrances for both structures facing rights-of-ways are/will be clear glazing. Large glass openings will be located on the front façade of the existing structure and are transparent. The plans indicate that the proposed garage will have two garage doors and a small window on the front façade.

Proposed access to the subject property is from Lane Street. There is a 24 feet wide entrance near the center of the property. The internal driveway is also 24 feet in width. (The Staff report stated 22 feet for entrance and internal driveway but were changed by the Applicant to 24 feet for both)

The Development Ordinance states that there should be architectural interest and variety in structures. It further states that the effect of a single long or massive wall with no relation to human scale proportions should be avoided.

With regards to adherence to the articulation requirements, the applicant states that there is a change in plane on the front façade of the existing structure as there is a recessed porch, a substantial amount of windows and glazing on the front façade and a minimum of eight feet overhead clearance at the front porch. Also, the plans indicate that the proposed garage will have two garage doors and a window near the roofline.

The Ordinance requires that all buildings under the regulation of Appendix B are to be constructed of quality materials. The Applicant states that exterior materials will consist of brick and horizontal hardie board and the trim is painted wood. The applicant states that the roofing materials are architectural shingles with standing seam metal over the porch. The materials on the garage are compatible with the principal structure.

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Site plan review and approval is required subsequent to Design Review Committee approval in order to ensure compliance with all applicable development requirements and conditions.

The Applicant shall procure any and all applicable federal, state, and local permits prior to commencement of the project.

The Chair asked if there were any questions for Staff, there being none the Chair called on the Applicant.

Ms. Ginger Moore, Architect, Carlos Moore Architect, 222 Church Street North, Concord, NC, addressed the Board stating there is not a lot she can add to the presentation, Mr. Collins has it covered.

She wants to make a couple of notes. This is currently, somewhat of a dilapidated 1300 square foot house that has been sitting vacant for some time. It also has a dilapidated garage that sits inside the setback. We are proposing to remove that and construct a new one that is a little smaller and more in scale with the proposed house.

It is for a homebuilder, for her main office. It is her intention to have good materials that she can show perspective vendors and clients what to expect. I feel sure it will be well crafted and quality materials because that is what she wants to sell. It will not be very high traffic and it will be her and her daughter; only one employee. They would be bringing in a buyer one family at a time.

The Chair asked if there were any questions from the Board. There being none, he opened the Public Hearing. There being none one to speak for or against the case, the Chair closed the Public Hearing. He asked if there were any questions for Staff or the Applicant. There were none.

The Chair said we do need to build the record here. The Staff report has a lot of comments on the Architectural Design Standards. At this point we will take some comments to either support or not support this case.

The Chair said we have heard that the scale, especially with the changes in the garage size will be very complimentary, including the height. We heard that the roof lines appear to be appropriate. The fenestration appears to be good as well with a very nice front façade and large windows. Access appears to be good, 24-foot entrance is plenty. Articulation looks like there is a variety of architectural components to the building which is great. Materials as we heard Ms. Moore state, it appears to be very high-quality materials based upon the use of the building as a sales office.

Mr. Dagenhart said although the construction is currently in the setback, it would be removed and replaced with new construction, which adds to the architecture.

The Chair said the landscape plan appears to meet the Development Ordinance. The parking

requirements are met, lighting is sufficient on the building for security and other reasons.

There being no other comments. Mr. Brent Rockett, **MOTIONED, SECONDED** by Mr. Adam Dagenhart to **APPROVE** ARCH2021-00001 with the two conditions recommended by Staff. The vote was unanimous.

Directors Report

Ms. Morris has a couple of items. For those of you that have been involved with and/or following the Harrisburg UDO update the public meeting is tomorrow. You have to register to get the link to the Zoom meeting. If that is something of interest let her know. She has an email that she can send if anyone would like to participate in that. The meetings with the Steering Committee have been starting at 4:30. She is not sure what time that one is but if it is of interest to those of you who live over that way, let her know and she will send the email and you can register to get the link.

The other item is that we have a couple of conflicts for using this room. Our Emergency Management Office wants us to continue to meet out here until the Governor changes his standards. Even though we can have more people in the room we still have to maintain the six-foot distance between the people.

We are currently looking at June as our next meeting, June 15th is when the room is available. These are all Tuesdays', but they are Tuesday's that are after when we typically meet. She will follow up with a survey to find out who all is available before we confirm. We are tentatively scheduled until we confirm.

August will be the 17th and in September our meeting competes with the fair so it will be the next week. June, August, and September, instead of the second Tuesday, we are potentially looking at the third Tuesday. The rest of the year through December would be back to the regular second Tuesday. She will send the Board an email and of course that is all subject to change.

When she talked with Emergency Management Director the numbers here are going up so we will continue to play it by ear. The next date that we are looking at is June 15th, but again, she will send a survey out tomorrow.

She is sure the Board saw the email from Mr. Jay Wood, resigning from the Board. She will start working on filling that position. But between now and when we get it filled, if the Alternates could try to hold this night open, and the rest of you, so that we can have a full complement of the Board in case we have any Board of Adjustment items come up.

Legal Update

Mr. David Goldberg, Deputy County Attorney, addressed the Board. We are working on the Joyner Road issue that came up with the RV. The gentleman has not been willing to cooperate further. We have filed a suit in Superior Court to seek the civil penalty, more importantly to seek an injunction to instruct him to remove the junk cars and remove the RV and come into compliance. As of yesterday, he had not been served yet. He has separate Sheriff Department criminal issues that have come to light. So, this could go in a lot of different directions, we may end up serving in him in jail. We are going to play that one by ear; but that is being pursued aggressively.

The other item is on Flowes Store Road next to the Fire Department, kind of an unofficial sawmill has come about. I have had contact with his attorney, we need to come back around on that next week. The guy's attorney is cooperative and has impressed upon him the seriousness of the situation.

I think he is looking at it as you know I am right next to the Fire Station, and on that list, it is commercial to a degree and so why can't I chop a bunch of wood here. He has confirmed the use and he has created this whole business for himself, he sells firewood to wood burning restaurants. He has employees there and he has talked about the employees living on the property. We kind of had a reality check conversation a couple of days or so ago. He needs to get on the front end and see where we stand on this.

Other than that, there are other cases that are not quite ready for the Board. We will keep talking as far as text amendments go.

There being no further discussion, Mr. Adam Dagenhart **MOTIONED, SECONDED** by Mr. Stephen Wise to **ADJOURN**. The vote was unanimous. The meeting ended at 10:09 p.m.

APPROVED BY:

Mr. Jeff Corley, Chair

SUBMITTED BY:

Arlena B. Roberts

ATTEST BY:

Susie Morris, Planning and Zoning Manager

DRAFT

Planning

Memo

From: Phil Collins, AICP
Senior Planner

To: Planning & Zoning Commission

Date: June 15, 2021

Re: Update on Vulcan Rezoning Request – RZON2021-00001

At the April meeting, the Planning and Zoning Commission considered a request to rezone property located at 5300 Gold Hill Road East from Office/Institutional (OI) to General Industrial – Conditional Use (GI-CU). Due to neighborhood concerns, Vulcan Lands requested to table the matter to meet with the surrounding property owners, further discuss the request and seek resolutions for the issues presented during the public hearing.

A meeting was held on May 17, 2021, for the surrounding property owners (Exhibit D). Thirty-eight property owners were invited to the neighborhood meeting. Fifteen invitees attended.

As a result of the discussions and feedback from the neighbors, Vulcan has revised their submittal materials. Among the changes are:

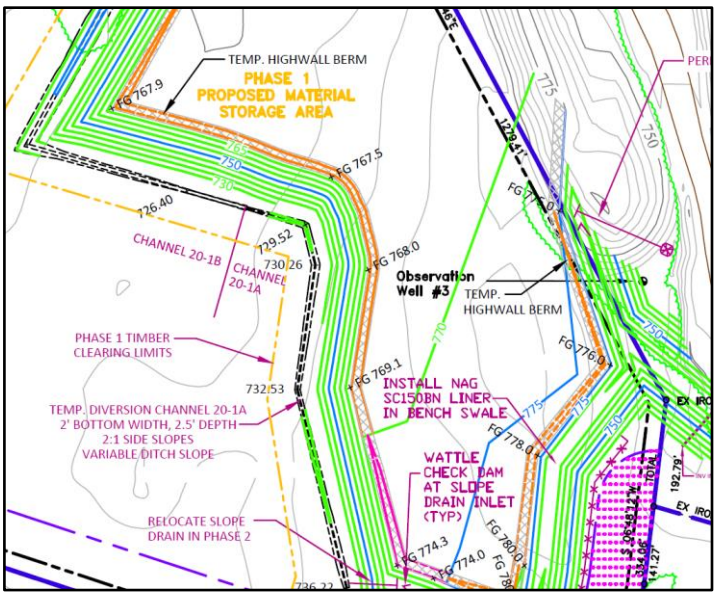
- White noise back up alarms
- Timbering of the site will be phased based on the current phase plan

See note 5.j of the Site Development Notes



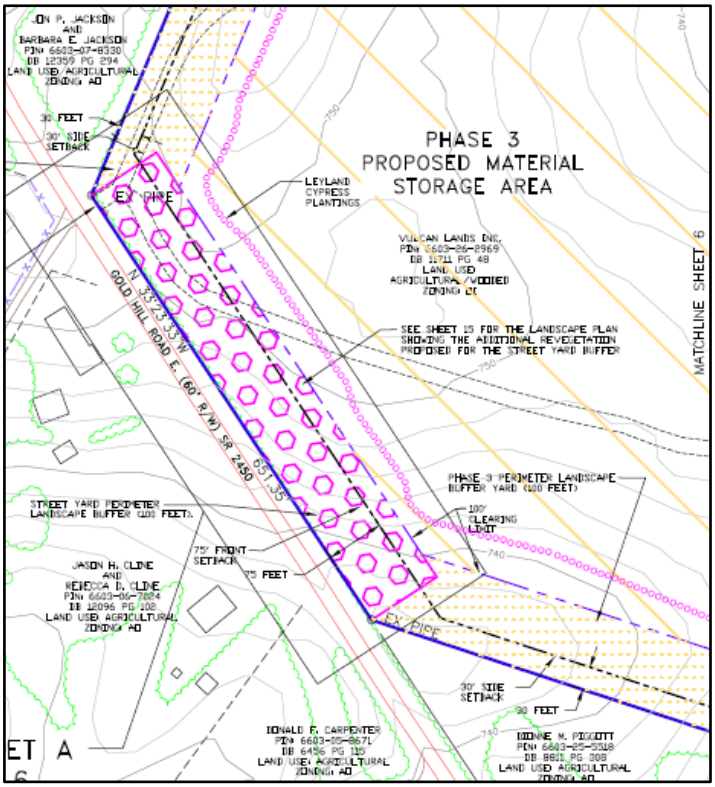
From sheet 10 of the site plan Also see note 5.k of the Site Development Notes

- A 40’ slope (berm) constructed along the non-quarry perimeter of each phase prior to placing over-burden material



From sheet 10 of the Site Plan.

- A row of Leyland Cypresses to be planted at the toe of the new slope (berm) along the phase 3 perimeter



From sheet 9 of site plan, also see note 4.l of Site Development Notes

- Existing quarry access to be utilized for timbering operations for the subject parcel instead of the Gold Hill Road entrance

See note 3.d of the Site Development Notes

See attached letter from the applicant's attorney (Exhibit B) for additional information.

Staff originally requested that the following conditions be placed on the request:

1. Granting order, stating restrictions and applicable conditions of approval shall be recorded with the deed for the property. (Planning)
2. Any changes to the approved site plan must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit. (Planning)
3. Copies of any state, local, and/or federal permits related to the use of the subject property shall be submitted to the Planning Department as part of the permanent project file. (Planning)
4. Applicant must comply with the terms of NCDEQ/NPDES Industrial Stormwater Permit NCGO 20000 and NCDEQ Mining Permit 13-04. (NCDEQ)
5. Applicant is proposing to use existing landscape to meet required landscape buffers. Where there are gaps in planting areas or planting areas do not conform to ordinance requirements, applicant shall provide supplemental plantings as needed to obtain ordinance conformance. (Zoning)
6. Applicant shall provide a copy of the Reclamation Bond where the obligee is NCDENR to accompany Surety Rider that was submitted.
7. Applicant shall provide a copy of the survey at a scale of 1:100 at the time of zoning site plan review.

In addition to the original proposed conditions of approval in the staff report, the following conditions are proposed by the applicant:

8. White noise back up alarms
9. Timbering of the site will be phased based on the current phase plan
10. A 40' slope (berm) constructed along the non-quarry perimeter of each phase prior to placing over-burden material
11. A row of Leyland Cypresses to be planted at the toe of the new slope (berm) along the phase 3 perimeter
12. Existing quarry access to be utilized for timbering operations for the subject parcel instead of the Gold Hill Road entrance

Updated materials provided:

- Exhibit A – Update Memo
- Exhibit B – Applicant Response Letter & Neighborhood Meeting Information
- Exhibit C – Revised Site Plan
- Exhibit D – Revised Site Development Notes
- Original Packet Materials

JOHNSTON ALLISONHORD

Exhibit B

R. Susanne Todd
Partner

WRITER'S E-MAIL ADDRESS:
stodd@jahlaw.com

WRITER'S DIRECT DIAL:
704-998-2306

May 18, 2021

Mr. Phil Collins
Senior Planner
Cabarrus County Planning and Zoning
65 Church St. S
Concord, NC 28025

Via Electronic Mail
PECollins@cabarruscounty.us

Re: Applicant: Vulcan Lands Inc./ Vulcan Materials Company
REZON21-00001
Conditional Use Rezoning Request for 138.38 AC from O/I to GI-CU
Cabarrus County PIN# 6603-26-2969

Dear Mr. Collins:

Our firm is assisting Vulcan Lands Inc with conditional use rezoning application REZON2021-00001. This matter initially came before the Cabarrus County Planning and Zoning Commission ("Board") on April 13, 2021. In light of questions and concerns raised by neighbors in the area, the matter was tabled until the next Board meeting for Applicant and neighboring property owners to work together to address these issues. Vulcan conducted a second Neighborhood Meeting on May 17, 2021 from 4 PM-8 PM and invited over 40 adjacent and area property owners to attend. A list of invitees and a copy of the Invitation is enclosed herewith as **Items #1 and #2**.

Prior to the Neighborhood Meeting, Vulcan worked to address questions and comments raised by neighbors, including questions around noise, dust, timbering, hours of operation and visibility related to the proposed Overburden Storage Use and existing quarry operations. Sixteen neighbors attended the drop-in meeting. A copy of the Sign In list is enclosed as **Item #3**.

We appreciated the opportunity to listen one on one to neighbor concerns, discuss design changes proposed to address these issues, and also, to clarify miscommunication or misconceptions about quarry operations.

In response to our neighbors' feedback, Vulcan has revised its Site Plan Notes and Site Plan to provide:

1. White noise back up alarms on equipment will be used on the Site.

2. Instead of clear cutting the estimated 100 acres within Phases 1-4 of the Site prior to commencement of any overburden storage development, Vulcan will phase its timbering activities to coincide with the commencement of overburden storage construction within each Phase. A Phased Timbering map is included herewith as **Item #4.**

Although less cost effective, phasing the timbering will allow existing vegetation to remain as a buffer until replaced by the vegetated overburden storage buffer constructed within the prior Phase.

3. Vulcan will commence development in each of the 4 Phases by first constructing and seeding a 40 foot high slope along the non-quarry perimeter of each Phase. Overburden materials will then be placed behind the slope.

The trees within the perimeter buffer generally measure between 40-60 feet in height. The resulting buffer plus fill slope will afford a solid vegetated barrier against adjacent properties to minimize visibility and sound of the storage activities and the existing quarry operations.

4. **Vulcan agrees to provide a row of Leyland Cypresses on the toe of slope along the Phase 3 Perimeter of the Project.**

This will include the area along Gold Hill Road E., further screening overburden storage activities from public view.

5. **Vulcan agrees to utilize its existing quarry access for timbering operations on each phase of the Project in lieu of the access off Gold Hill Rd. E.**

A few neighbors raised concern over use of the Site's Gold Hill Rd. E access for timbering operations. Using the quarry haul roads and access to Old Beatty Ford Rd. will alleviate neighbor concerns.

Under separate cover, Vulcan will also submit a revised Site Plan that includes the aforementioned conditions in the Site Plan Notes and as applicable in the landscaping and construction sheets of the Site Plan. I will also provide an electronic version of the Site Plan and redlined Site Plan Notes with this correspondence.

Prior to, and during the Public Hearing, construction time frames ranging between 10-40 years were mentioned, causing understandable frustration among attendees. Since the amount of overburden created from the existing quarry is ultimately driven by the demand

for aggregate product from the quarry, Vulcan is unable to provide a definitive deadline for completion of construction on the Site. However, Vulcan asked its engineers to evaluate overburden volumes based on current market demand, and was able to provide neighbors with a more realistic estimated timeframe of 10-15 years. In arriving at this analysis, Vulcan also took into consideration that the mining operations at the Gold Hill quarry create more waste materials than other quarry operations due to the specific aggregate mined at this location.

The Neighborhood Meeting also allowed Vulcan to address comments raised regarding noise from nighttime operations, damage to wells and dust. Although the Gold Hill quarry is permitted to operate at night, it does not actually do so. However, there are other industrial users in the immediate area that operate 24/7.

Vulcan had a blasting engineer at the neighborhood Meeting to explain that the blasting threshold enforced by the State coupled with Vulcan's internal controls results in zero probability of damage to wells in the area. The engineer also explained the impact of the current drought conditions on well pressure; April being the driest month of the year in this region.

Vulcan has offered to investigate the dust concerns, explaining that both the existing quarry and proposed overburden storage Site are required by law to control dust from its operations. Of note is that the Gold Hill quarry recently passed stringent air quality inspections conducted by the NCDEQ. Vulcan cannot control dust coming from other uses in the area.

Thank you for your attention to this matter. Should you have any questions or require anything further, please do not hesitate to contact me directly at 704.998.2306.

Sincerely,



R. Susanne Todd

RST/edf
Enclosures
cc: Denise Hallett, Vulcan Materials Company

Owner	Cabbarus County PIN	Property Address	Mailing Address
Larry Wayne Whitley	66034502360000	15103 Short Cut Road, Gold Hill, NC 28071	15103 Short Cut Road, Gold Hill, NC 28071
Allan L Kesler	66030897460000	5650 Gold Hill Road E, Gold Hill, NC 28071	5650 Gold Hill Rd E, Gold Hill, NC 28071
Jon P Jackson & Barbara E Jackson	6603180236000	5530 Gold Hill Road E, Gold Hill, NC 28071	5450 Gold Hill Rd E, Gold Hill, NC 28071
Jon P Jackson & Barbara E Jackson	6603171916000	5240 Gold Hill Road E, Gold Hill, NC 28071	5450 Gold Hill Rd E, Gold Hill, NC 28071
Jon P Jackson & Barbara E Jackson	66030783300000	5330 Gold Hill Road E, Gold Hill, NC 28071	5450 Gold Hill Rd E, Gold Hill, NC 28071
Daryl K Philen & Karen A Kieffer	56939628230000	5331 Gold Hill Road E, Gold Hill, NC 28071	Po Box 1499, Mt. Pleasant, NC 28124
Raul B Ramirez & Monica G. Ramirez	66031916740000	13956 Connor Road, Gold Hill, NC 28071	14816 Baytown Court, Huntersville, NC 28078
Donald F Carpenter	66030586710000	5201 Gold Hill Road E, Gold Hill, NC 28071	5201 Gold Hill Road E, Gold Hill, NC 28071
Jason H Cline & Rebecca D Cline	66030670240000	5301 Gold Hill Road E, Gold Hill, NC 28071	5301 Gold Hill Rd E, Gold Hill, NC 28071
Dionne M Piggott	66032555180000	5200 Gold Hill Road E, Gold Hill, NC 28071	644 S Madison St., Eden, NC 27288
John Paul Ferrante III & Erin Elizabeth Ferrante	66041040690000	13980 Connor Road, Gold Hill, 28071	1233 Pressley Downs Dr SE, Concord, NC 28025
Gary Alan Rinehardt & Amy Lane Rinehardt	66031923110000	13932 Connor Road, Gold Hill, NC 28071	2468 Twelve Oaks Rd, Concord, NC 28025
Carolina Stalite Company	383 032 *(Rowan Co.)*	16740 Old Beatty Ford Road, Gold Hill, NC 28071	Po Box 1037, Salisbury, NC 28145
Robert L. Stadler	66040032080000	6050 Gold Hill Road E, Gold Hill, NC 28071	6050 Gold Hill Road E, Gold Hill, NC 28071
Sparkle Properties LLC	66030722610000	5457 Gold Hill Road E, Gold Hill, NC 28071	2175 Gold Knob Road, Salisbury, NC 28146
Ralph B. Bell, as Trustee of the Ralph Bell Trust dated December 11, 2000, & Pearlie M. Bell, as Trustee of the Pearlie Bell Trust dated December 11, 2000	66031518800000	5171 Gold Hill Road E, Gold Hill, NC 28071	30313 N. Meadowridge, Farmington Hills, MI 48334
Martha H. Young Life Estate	66034718780000	5310 Gold Hill Road E, Gold Hill, NC 28071	5250 Masons Ferry Road, Lake Wylie, SC 29710
Martha H. Young Life Estate	66033923180000	5318 Gold Hill Road E, Gold Hill, NC 28071	5250 Masons Ferry Road, Lake Wylie, SC 29710

Thomas and Jennifer Jordan 5160 Gold Hill Road Gold Hill NC 28071
David and Tamara Eichorn 15099 Short Cut Road Gold Hill NC 28071
Yesterways Farm LLC 15401 Short Cut Road Gold Hill NC 28071
Eric and Amber Wallace 5020 Gold Hill Road E Gold Hill NC 28071
John and Linda Gomez 5030 Gold Hill Road East Gold Hill NC 28071
Frances L Miles Trustee, 4925 Gold Hill Road E Gold hill NC 28071
Mitchell Steven Ramsey and Johanna Nazario 4808 Gold Hill Road E Gold Hill NC 28071
Bobby and Judy Allman 4930 Gold Hill Road E Gold Hill NC 28071
David Hurtado Cesar Esqueda and Yesenia Rangel 5151 Gold Hill Road E Gold Hill NC 28071
Daryl Philen and Karen Kieffer PO Box 1499 Mt. Pleasant NC 28124
Shirley Jamerson 5599 Gold Hill Road East Gold Hill NC 28071

Chad Andrew and Whitney Rinehardt Grimm PO Box 1388 Mt. Pleasant NC 28124
Kevin Ray and Jennifer Lynn Goff 5799 Gold Hill Road E Gold Hill NC 28071

Lou Anne Butler 5849 Gold Hill Road E Gold Hill NC 28071
Cole and Nicole D. Blackburn 5879 Gold hill Road E Gold Hill NC 28071
Kevin and Cynthia Rudisill 215 Fox Grove Ln. Salisbury NC 28146
Rodney and Teresa Gulledge 5999 Gold Hill Road E Gold Hill NC 28071
Robert Mayfield 13922 Connor Road Gold Hill NC 28071
William and Susan McLaurin 13902 Connor Road #6 Gold Hill NC 28071
Tommy Allen Carnes 552 Harbor Grove Circle, Safety Harbor, FL 34695
Bret and Ashley Johnson 13891 Connor Road Gold Hill NC 28071
Larry and Sharon Humphreys 13901 Connor Road Gold Hill NC 28071
Chris Price and Genesis Sleight-Price 13935 Connor Road Gold Hill NC 28071
Mark Erik and Jill Ann McKenny 6090 Gold Hill Road E Gold Hill NC 28071



Vulcan
Materials Company

May 7, 2021

James David Miles
4701 Gold Hill Road E
Gold Hill, NC 28071

Re: Vulcan- Conditional Use Rezoning Request for 138.38 AC from O/I to GI-CU – Neighbor Follow Up Meeting

Dear Mr. Miles

I am the Manager of Community and Government Relations for Vulcan Materials Company's Mideast Division.

As you may know, Cabarrus County Planning & Zoning Board recently held a public hearing to consider our request to rezone approximately 138 Acres adjacent to our existing quarry from O/I to GI-CU. The property would be used to store overburden from the existing quarry. A site map is attached for your reference.

Since the public hearing, our team has been working on revisions to our application in response to some of the neighbor concerns and questions raised during the hearing.

You are invited to a neighbor follow up meeting on **Monday, May 17th** at the Russell Rufty Shelter located in Historic Gold Hill. The address is 755 St. Stephens Church Road, Gold Hill, NC 28071.

The drop-in meeting will be from 4-8 PM. Members of our team will be on hand to speak with you about the project and discuss design elements and conditions that may more fully address the questions and concerns expressed at the public hearing.

If you are unable to attend the drop-in but would like to discuss the project, feel free to contact me via phone at 704-560-5304 or email at hallettd@vmcmail.com to arrange a time convenient to you.

We look forward to our time together.

Sincerely,

Denise Hallett

Denise Hallett

cc: Butch Newby, Plant Manager, Gold Hill Quarry

1131259 v. 2

EXHIBIT
tabbies
2

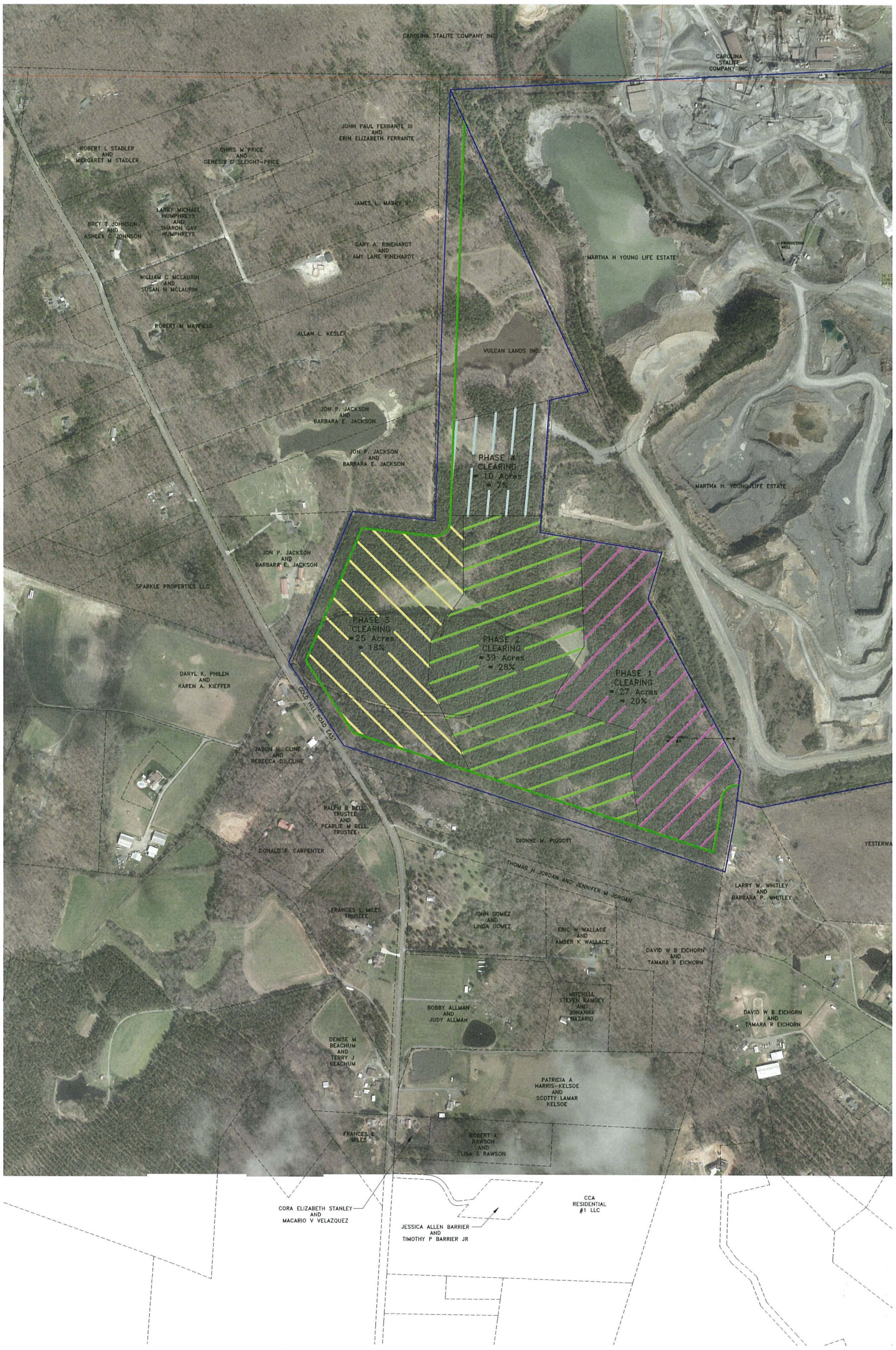
Vulcan Materials Company

Gold Hill Quarry- Conditional Zoning Neighbor Meeting

Monday, May 17, 2021- Historic Gold Hill Russell-Rufty Shelter

First Name	Last Name	Address	Phone	Email
Eric	Wallace	5020 Gold Hill rd. E	(704) 438-8431	Amber moore 2222@yahoo
Larry	Whitley	15103 Shat Cut Rd	980-521-1155	✓
Jill	McKenny	6090 Gold Hill Rd E GH NC	704-886-8433	emjm2013@gmail.com
Margaret	Stadler	6050 Gold Hill Rd E	980-777 2537	pmstad@windstream.net
Russ Susan	Wolfe Yesterways Barden Farm	15401 Short Cut Rd	704 2360018	
Barbara	Jackson	5450 Gold Hill Rd E	719-510-7873	barbarajacksonrn@msn.com
Jon	Jackson	Gold Hill 28071	719-510-7870	jpjteck@msn.com
John	Gomez	5030 Gold Hill Rd E	7042799137	jvgomez1952@gmail.
David	Hurtado	5151 Gold Hill Rd	980)422-9142	CDHE1208@Gmail.com
Kim	Miner	15093 Short Cut Rd.	704-213-4842	kim_eichorn@ymail.com
Tamara	Eichorn	15099 Shat Cut Rd	704-202-9825	
Enn + John	Ferrante	13980 Connor Rd.	336-707-5113	etatum91@gmail.com
Jennifer	Jordan	5160 Gold Hill Rd E	704-433-7280	jenjordan7@gmail.com

EXHIBIT 3



COMPILED BY:

tuck MAPPING SOLUTIONS INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET, KANNAPOLIS, NC 28082
P.O. BOX 1248, 704/938-1515

DATE	JOB No.	DRAWN BY:	CHECKED BY	DRAWING No.
5-17-21	11526	PCC	GWW	11526 Gold Hill Quarry 2021 Draft Timber Exhibit.dwg

REVISION No.	DESCRIPTION	DATE	INITIAL

PERMIT LIMITS AND ACREAGES ARE BASED ON AN AGGREGATE OF PROPERTY DEEDS AND BOUNDARY SURVEYS. A BOUNDARY SURVEY OF THE SITE WAS NOT PERFORMED BY ALLEY, WILLIAMS, CARMEN & KING, INC. ADJACENT PROPERTY LINES AND INTERIOR PROPERTY LINES ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY.

SITE DEVELOPMENT NOTES

PROPERTY SIZE:	138.38 ACRES
STORAGE AREA SIZE:	100.21 ACRES = 72%
SETBACKS AND NON STORAGE USE:	38.17 ACRES = 28%

PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1996

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998523
Ground to Grid = 1.0001477

200 0 200 400

SCALE 1" = 200'
CONTOUR INTERVAL 5'

Vulcan Materials Company

GOLD HILL QUARRY

MINE LEGEND

- SHAFER TRACT
- 100' UNDISTURBED BUFFER
- ROWAN CO. GIS PARCEL LINES
- CABARRUS CO. GIS PARCEL LINES

NOTES:
1. TIMBERING OPERATIONS ARE TO BE CONDUCTED WITHIN PROPERTY OWNED BY VULCAN LANDS LLC. STREAM BUFFERS AND PROPERTY BUFFERS ARE TO REMAIN UNDISTURBED.
2. PROPERTY OWNERS ARE NOW OR FORMERLY.
3. AERIAL PHOTOGRAPHY AND TOPOGRAPHICAL MAPPING PREPARED BY TUCK MAPPING SOLUTIONS INC. AND DATED 3/20/20.
4. TIMBER OPERATIONS WILL NOT INCLUDE CLEARING AND GRUBBING OF THE SITE.
5. FORESTRY BMPS WILL BE INSTALLED FOR ANY DISTURBANCE ASSOCIATED WITH LOGGING ROADS, LOADING AREAS, ETC. THESE AREAS WILL BE STABILIZED WITH A GROUND COVER AT THE END OF TIMBERING ACTIVITIES.
6. THIS MAP SHOWS THE LOCATION OF PARCEL LINES BASED ON ROWAN AND CABARRUS COUNTY GIS DATA. THESE LINES ARE APPROXIMATE AND ARE SHOWN FOR REFERENCE ONLY.
7. THE NAMES OF PROPERTY OWNERS ARE BASED ON ROWAN AND CABARRUS COUNTY GIS DATA. THIS DATA MY NOT REFLECT CURRENT PROPERTY OWNERSHIP.

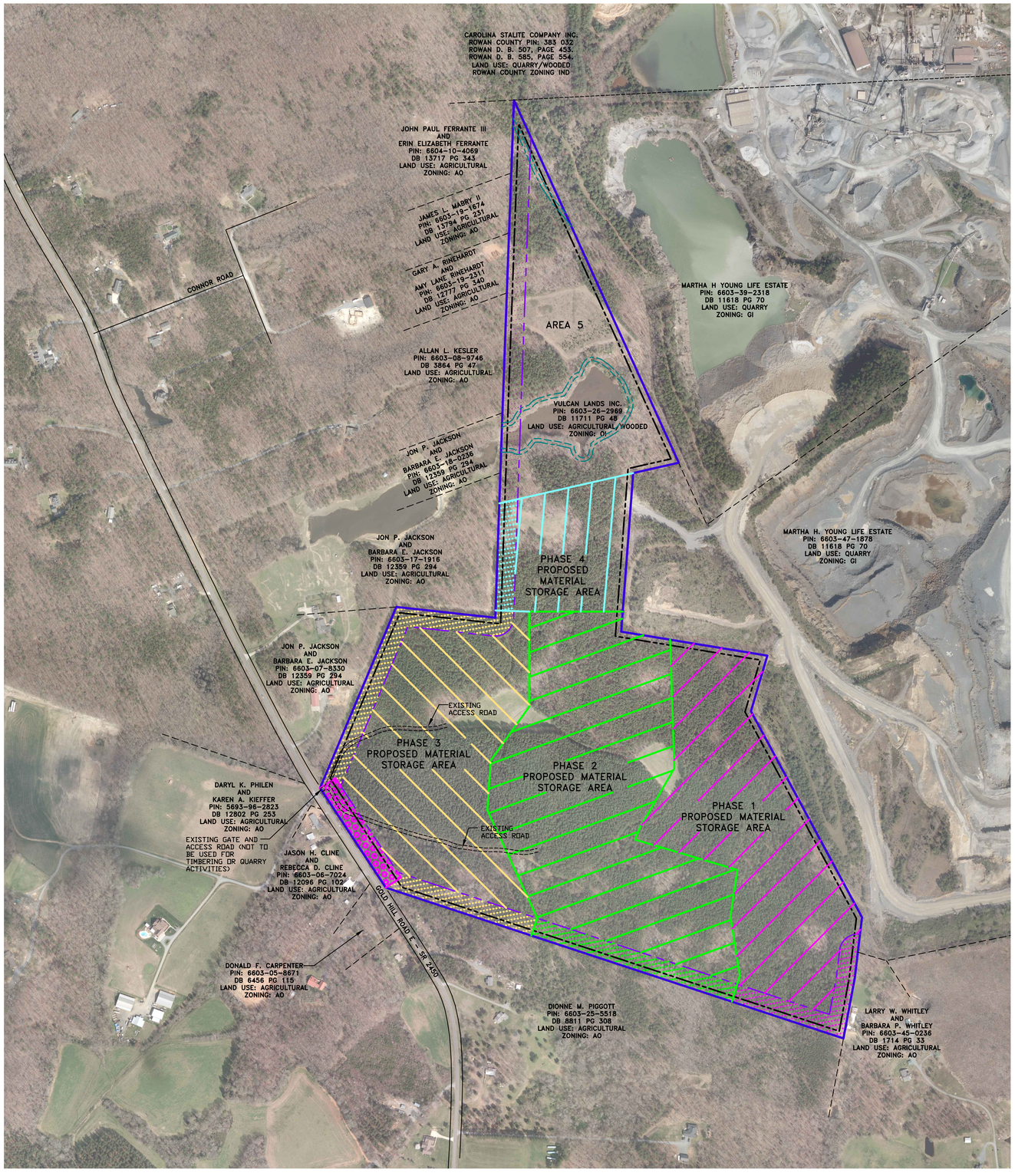
NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

Digitally signed by G. Wesley Webb
DN: cn=G. Wesley Webb, o=Alley, Williams, Carmen & King, Inc., ou=Engineering, email=wesw@awcking.com, c=US
Date: 2021.05.17 14:08:49 -04'00'

5/17/2021

PROPOSED TIMBER OPERATIONS PHASING EXHIBIT

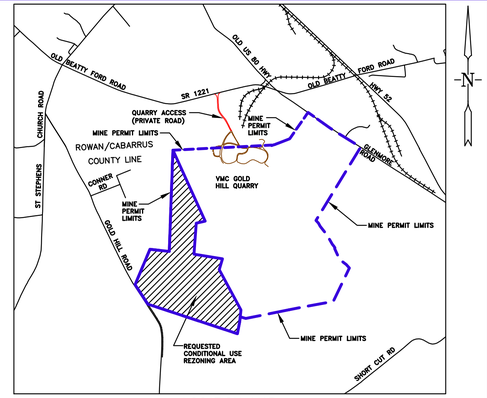
EXHIBIT 4



SITE MAP
SCALE : 1" = 300'

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

FEMA FLOODPLAIN NOTES:
THE SITE IS LOCATED ON FEMA FIRM MAP PANELS 3710660400J AND 3710660200J, DATED 11-5-2008. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A FEMA MAPPED FLOODPLAIN OR FLOODWAY.



LOCATION MAP
SCALE : 1" = 2000'

SHEET LEGEND

SITE MAP	SHEET 1	PHASE 3 GRADING PLAN	SHEET 12
SITE DEVELOPMENT NOTES	SHEET 2	PHASE 4 GRADING PLAN	SHEET 13
PROPERTY SURVEY	SHEET 3	FINAL SITE GRADING	SHEET 14
SITE PLAN	SHEET 4	BUFFER PLAN SHEET 1	SHEET 15
SITE PLAN	SHEET 5	BUFFER PLAN SHEET 2	SHEET 16
SITE PLAN	SHEET 6	DETAILS	SHEET 17
SITE PLAN	SHEET 7	DETAILS	SHEET 18
RECLAMATION PLAN	SHEET 8	DETAILS	SHEET 19
RECLAMATION PLAN	SHEET 9	DETAILS	SHEET 20
PHASE 1 GRADING PLAN	SHEET 10	DETAILS	SHEET 21
PHASE 2 GRADING PLAN	SHEET 11		

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

SITE DATA:

PROPERTY INFORMATION:	PIN: 6603-26-2969
PROPERTY ADDRESS:	5300 GOLD HILL RD E
DEED REFERENCE:	DEED BOOK 11711 PAGE 48
TOTAL AREA:	138.388 ACRES (6,028,181 SF)
OWNER:	VULCAN LANDS INC. 1200 URBAN CENTER DR BIRMINGHAM, AL 35242 336-767-4600
CURRENT ZONING:	OI (OFFICE/INSTITUTIONAL)
PROPOSED ZONING:	GI-CU (GENERAL INDUSTRIAL - CONDITIONAL USE)
CURRENT LAND USE:	AGRICULTURAL/WOODED
PROPOSED LAND USE:	MATERIAL STORAGE OF EARTH PRODUCTS (QUARRY), FORESTRY (AGRICULTURE)
PROPOSED BUILDINGS:	NONE
FRONT SETBACK:	75 FEET
REAR/SIDE SETBACK:	30 FEET
APPLICANT:	VULCAN MATERIALS COMPANY 4401 NORTH PATTERSON AVE, WINSTON SALEM, NC 27105 336-767-4600
CIVIL ENGINEER:	G. WESLEY WEBB, PE ALLEY, WILLIAMS, CARMEN & KING, INC. 120 SOUTH MAIN STREET KANNAPOLIS, NC 28081 704-938-1515

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD05E6BA548B... 5-18-21

Vulcan Materials Company

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 REMOVED EXCESS DATA FROM LOCATION MAP 5-18-21

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE MAP

JOB NO. 11526
SHEET NO. 1
OF: 21

SITE DEVELOPMENT NOTES

1. General Provisions

a. These Site Development Notes form a part of the Conditional Plan associated with the Conditional Use rezoning application filed by Vulcan Materials Company ("Applicant") to accommodate the development of approximately 138.388 Acres of real property located off Gold Hill Road East, in Gold Hill (Cabarrus County), North Carolina for Extraction of Earth Products ("Quarry") use, said real property being further identified as Cabarrus County PIN # 6603-26-2969 (the "Site").

b. Applicant proposes the rezoning of the Site from O/I (Office/Institutional) to GI-CU (General Industrial-Conditional Use). These Site Development Notes, the Site Plan (consisting of Sheets 1-21), Applicant's rezoning application and any additions or revisions thereof, are collectively referred to as the "Rezoning Plan" or "Conditional Plan." Development of the Site will be governed by the Rezoning Plan as well as applicable provisions of the Cabarrus County Development Ordinance ("Ordinance").

c. Alterations to the Conditional Plan are subject to Chapter 13 of the Ordinance.

2. Permitted Uses:

a. Use of that portion or portions of the Site identified as Phase 1, Phase 2, Phase 3 and Phase 4 on the Site Plan (individually, a "Phase"; collectively, the "Phased Area") shall be limited to construction of, and use as, material storage area(s) for storage of processed materials and by products from the excavation processes of the adjacent quarry ("Overburden Storage" or "Quarry use").

b. Use of the Site for extraction (pits) or mining operations other than Overburden Storage is prohibited.

c. Approximately 25 acres of the Site, located to the North of Phase 4 and identified as Area 5 on the Site Plan, shall not be used for Overburden Storage, but shall remain generally in its natural condition to provide additional buffering and screening of the existing quarry operations located to the east of the Site.

d. Subject to the phasing requirement for the Phased Area in Section 5(k) herein, Applicant reserves the right to timber those portions of the Site located outside of the 100 foot wide perimeter landscape buffer yard as shown on the Site Plan.

3. Transportation

a. All access to and from the Site for Quarry use shall be through the adjacent quarry via an existing driveway connection to SR 1221 (Old Beatty Ford Road) in Rowan County as shown on the Site Plan.

b. The Site also has access via an existing driveway connection on SR 2450 (Gold Hill Road East) as shown on the Site Plan. Access via the Gold Hill E. connection shall be limited to pond maintenance and emergency access.

c. Should the Gold Hill E. access need to be used for commercial use, a driveway permit from NCDOT will be required.

d. Access to and from the Site for timbering of the Phased Area shall be through the adjacent quarry.

4. Buffer and Landscaping:

a. Applicant shall provide a 30 foot building setback around the perimeter of the Site as shown on the Site Plan. Applicant shall provide a 75 foot building setback from Gold Hill Road E. as shown on the Site Plan. Required setbacks are located within the applicable buffer yards as shown on the Site Plan. No buildings are proposed for the Site.

b. Applicant shall provide and maintain a 100 foot wide perimeter landscape buffer yard between the Site and adjacent non-quarry parcels and Gold Hill E. right of way as generally shown on the Site Plan (the "Perimeter Buffer").

c. The Perimeter Buffer shall consist of existing vegetation, said existing vegetation intended to meet or exceed applicable Ordinance requirements for visual screening and separation of uses.

d. Applicant has identified 3 sections of the Perimeter Buffer where Applicant intends to provide additional plantings. These sections are identified as sections A, B and C on sheet 15 of the Site Plan.

e. Quarry use of the Site shall be phased as shown on the Site Plan. The portion of the Perimeter Buffer located within a particular Phase or area identified on the Site Plan will be completed prior to commencement of any Quarry use within the Phase or area.

f. Prior to commencement of any Quarry use within a Phase of the Site, Applicant and Planning Department will evaluate the existing vegetation within the Perimeter Buffer for said Phase. If all or portions of the existing vegetation have died, or otherwise been damaged, a supplemental plantings plan will be developed and submitted for approval to the Planning Department.

g. In those locations identified as A, B and C on sheet 15 of the Site Plan, Applicant will supplement the existing vegetation as described in the corresponding insets shown on sheet 16 of the Site Plan, or as otherwise agreed by Applicant and Planning staff to provide visual screening and separation of uses.

h. No perimeter landscape buffer shall be required between the Site and adjacent, existing quarry or industrial parcels.

i. An existing approximately 20 foot (20') wide access (haul) road encroaches into portions of the perimeter landscape buffer as generally shown on the Site Plan. Upon completion of any timbering activities, Applicant shall stabilize the access road with low maintenance ground cover as described on sheet 15 of the Site Plan.

j. Should the land use relationship between the Site and one or more abutting properties change such that a lesser buffer, or no buffer, would be required, Applicant reserves the right to reduce or eliminate the aforementioned buffer in accordance with Ordinance requirements and the limits of the development envelope may be expanded to include the former buffer area(s).

k. Where applicable, Applicant reserves the right to use existing vegetation to meet any buffer and screening requirements.

l. Applicant agrees to plant a row of Leyland Cypresses on the toe of slope along the perimeter of Phase 3 as shown on the Site Plan.

m. Initial activity for each Phase will be the construction and vegetation of exterior slopes along the non-quarry perimeter of said Phase.

5. Other Conditions:

a. There are currently no existing structures located on the Site.

b. Storage of processed materials and by products shall not be created to a height of more than forty (40) feet, and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

c. There is no existing or proposed sewage disposal, solid waste, or potable water facilities on the Site.

d. The Site has a NCDEQ mining permit (permit #13-04) and is exempt from the Sedimentation Pollution Control Act of 1973 and any requirements for sediment and erosion control plan approval.

e. The Site has a NCDEQ/ NPDES industrial stormwater permit (NCGO 20000) for stormwater and pit discharges from this Site. Development of this Site is not expected to create any post construction impervious areas that will flow away from the pit. Due to the proposed reclamation without future impervious areas, development of this Site does not require a Phase II stormwater permit.

f. All permanent roads, defined as those to be used in excess of one year, and located within three hundred (300) feet of existing residentially zoned land shall be surfaced with a dust free material such as soil cement, bituminous concrete, or portland cement concrete.

g. Roads other than permanent roads shall be treated with dust inhibitors, as specified in the Operations Plan, to reduce and minimize dust generation from road surfaces from either wind or vehicular action. Properly operated water wagons and sprayer irrigation shall be an acceptable method of dust inhibition.

h. Applicant is required by NCDEQ to maintain a reclamation bond for this Site as a condition of its mine permit. Prior to commencement of any mining operations on the Site and the release of any zoning permit(s), Applicant's engineer shall certify to the county the costs of reclamation on a per acre basis. If the reclamation costs exceed the amounts required by the state, then Applicant shall post a bond payable to Cabarrus County for the difference.

i. The site falls on two maps. FEMA FIRM MAPS 3710660400J and 3710660200J, dated 11-5-2008. The subject property does not lie within a FEMA mapped floodplain or floodway.

j. Applicant will outfit mobile equipment operating on the Site with white noise back-up alarms to help control sound to the extent that their use is permitted by the Mine Safety and Health Administration.

k. Timbering of the Site will be phased to coincide with the use of a particular Phase for Quarry use. For avoidance of doubt, the aforementioned phased timbering requirement is not applicable to Area 5 as shown on the Site Plan.

6. BINDING EFFECT OF THE REZONING:

If this Rezoning Plan is approved, all conditions applicable to development of the Site imposed under the Rezoning Plan, and these Site Development Notes will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of the Applicant and subsequent owners of the Site and their respective successors in interest, heirs and assigns. The term "Applicant" shall mean Vulcan Materials Company, its successors in interest, and assigns.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...

5-18-21

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21

Vulcan Materials Company

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

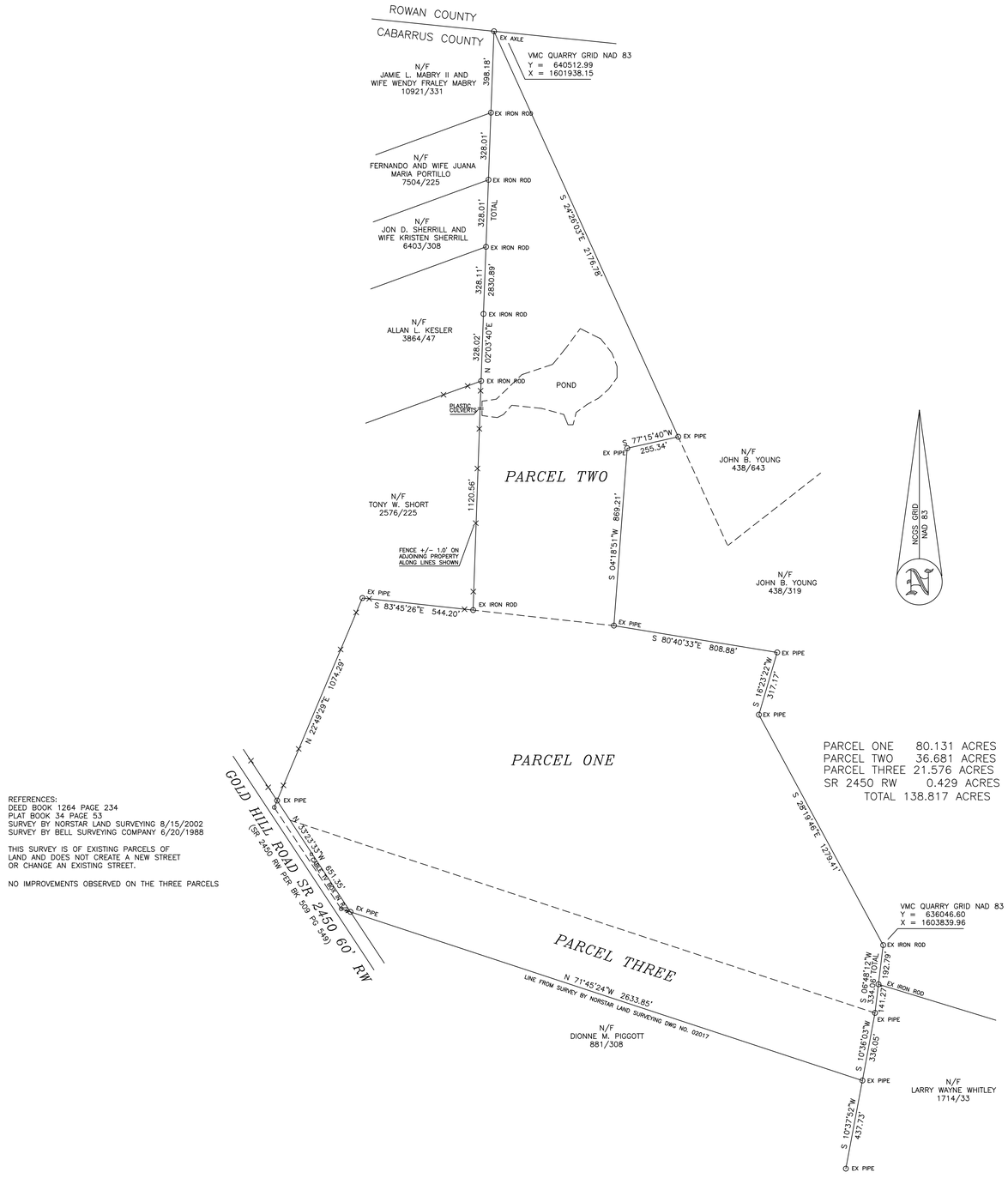
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE: PLAN: VARIES; PROFILE: HORIZ.: VERT.:
DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE DEVELOPMENT NOTES

JOB NO. 11526
SHEET NO. 2
OF: 21



All that tract or parcel of the land located in Cabarrus County, North Carolina being more particularly described as follows:

BEGINNING at an existing iron pipe located in the Northeastern right-of-way line of Gold Hill Road (SR 2450), said iron being the Southernmost corner of Lot #7 as shown on map entitled SUBDIVISION MAP OF 220.96 ACRES ON GOLD HILL ROAD recorded in Plat Book 34, Page 53, Cabarrus County Registry and running thence with the East line of Lot 7 North 22° 49' 29" East 1074.29 feet to an existing pipe in the Southern line of Lot #8 as shown in the aforementioned Plat; thence South 83° 45' 26" East 544.20 feet to an existing iron rod, said rod being a Southeast corner of property conveyed to Tony W. Short by deed recorded in Book 2576, Page 225, Cabarrus County Registry and also being the Southeast corner of Lot #8 as shown on the aforementioned Plat; thence with the East lines of properties owned by Tony W. Short (2576DB225), Allan L. Kesler (3864DB47), Jon D. Sherrill and wife, Kristen Sherrill (6403DB308), Fernando Portillo and wife, Juana Maria Portillo (7504DB225) and Jamie L. Mabry, II and wife, Wendy Fraley Mabry (10921DB331) North 02° 03' 40" East crossing irons at 1120.56 feet, 1448.58 feet, 1776.69 feet, 2104.70 feet, 2432.71 feet and continuing 398.18 feet for a total distance of 2830.89 feet to an existing axle located in the Rowan/Cabarrus County line, said axle being a Northwest corner of property conveyed to John B. Young by deed recorded in Book 438, Page 643, Cabarrus County Registry and having VMC Quarry Grid Coordinates of Y = 640512.99 and X = 1601938.15; thence with the West line of John B. Young South 24° 26' 03" East 2176.78 feet to an existing pipe, a corner of the John B. Young property as described in deed recorded in Book 438, Page 319, Cabarrus County Registry; thence with the West lines of John B. Young the six following courses and distances: (1) S 77° 15' 40" West 255.34 feet to an existing pipe; (2) South 04° 18' 51" West 869.21 feet to an existing pipe; (3) South 80° 40' 33" East 808.88 feet to an existing pipe; (4) South 16° 23' 22" West 317.17 feet to an existing pipe; (5) South 28° 19' 46" East 1279.41 feet to an existing iron rod, said rod having VMC Quarry Grid Coordinates of Y=636046.60 and X=1603839.96, and (6) South 06° 48' 12" West 192.79 feet to an existing iron rod; thence continuing South 06° 48' 12" West 141.27 feet to an existing pipe; thence South 10° 36' 03" West 336.05 feet to an existing pipe, on the northeast corner of property conveyed to Dionne M. Piggott as recorded in Book 881, Page 308, Cabarrus County Registry; thence with the North line of Piggott N 71° 45' 24" West 2633.85 feet to an existing pipe in the Northeastern right-of-way line of Gold Hill Road (SR 2450); thence with the Northeastern right-of-way line of Gold Hill Road N 33° 23' 33" West 651.35 feet to the point and place of beginning, containing 138.388 acres more or less, as shown on survey entitled THE "SHAFER" TRACT AT THE GOLD HILL NORTH CAROLINA QUARRY prepared by Helms Surveying Company dated August 17, 2015 (designated drawing #15-0803).

VULCAN LANDS INC.
CABARRUS COUNTY PIN: 6603-26-2969
CABARRUS COUNTY DB 11711 PG 48
LAND USE: AGRICULTURAL/WOODED
CABARRUS COUNTY ZONING: OI

PARCEL ONE 80.131 ACRES
PARCEL TWO 36.681 ACRES
PARCEL THREE 21.576 ACRES
SR 2450 RW 0.429 ACRES
TOTAL 138.817 ACRES

REFERENCES:
DEED BOOK 1264 PAGE 234
PLAT BOOK 34 PAGE 53
SURVEY BY NORSTAR LAND SURVEYING 8/15/2002
SURVEY BY BELL SURVEYING COMPANY 6/20/1988

THIS SURVEY IS OF EXISTING PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

NO IMPROVEMENTS OBSERVED ON THE THREE PARCELS

SURVEY PREPARED BY HELMS SURVEYING COMPANY AND SEALED BY DOUGLAS M HELMS, PLS L-3087 AND DATED 8-17-2015

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B... 3-23-21

Vulcan Materials Company

0 300 600 900

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

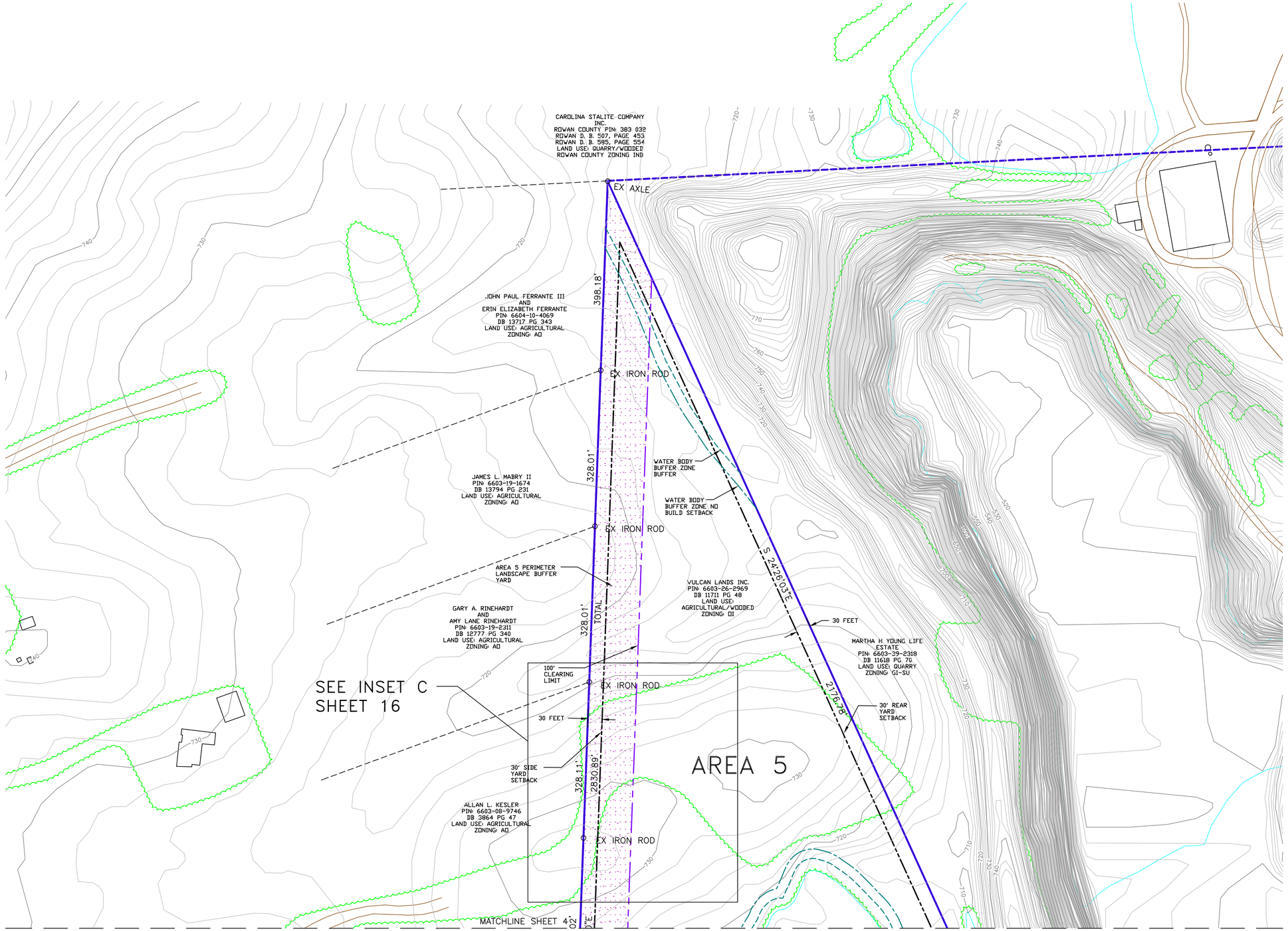
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

SCALE: PLAN: 1" =300' PROFILE: HORIZ.: VERT.:
DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PROPERTY SURVEY

JOB NO. 11526
SHEET NO. 3
OF: 21



2' CONTOURS ARE BASED ON THE 2007 LIDAR DATA PROVIDED BY THE NC FLOODPLAIN MAPPING PROGRAM.
HORIZONTAL DATUM: NORTH CAROLINA, NAD83, US FT
VERTICAL DATUM: NAVD88

PLANIMETRIC MAPPING (EXCLUDING CONTOURS) PROVIDED BY TUCK MAPPING SOLUTIONS, INC. MAPPING IS BASED ON AN AERIAL PHOTO DATED 3-20-20 AND A MAP ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

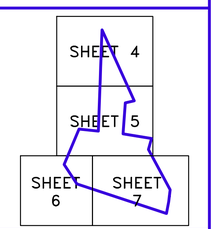
PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

SITE PLAN SHEET LEGEND



SITE PLAN NOTES:
1. 100 FOOT PERIMETER LANDSCAPE BUFFERS ARE TO BE PROVIDED ALONG EACH PHASE OF THE SITE DEVELOPMENT. SEE NOTE NO. 4 ON SHEET 2
2. SEE THE SHEETS 10 THROUGH 14 FOR THE PHASED GRADING ASSOCIATED WITH THE DEVELOPMENT OF THE MATERIAL STORAGE AREA.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER WESLEY WEBB
DocuSigned by: B. Wesley Webb 3A0D005E6BA648B...
5-18-21

Vulcan Materials Company

0 100 200 300

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

SCALE	
PLAN:	1" = 100'
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

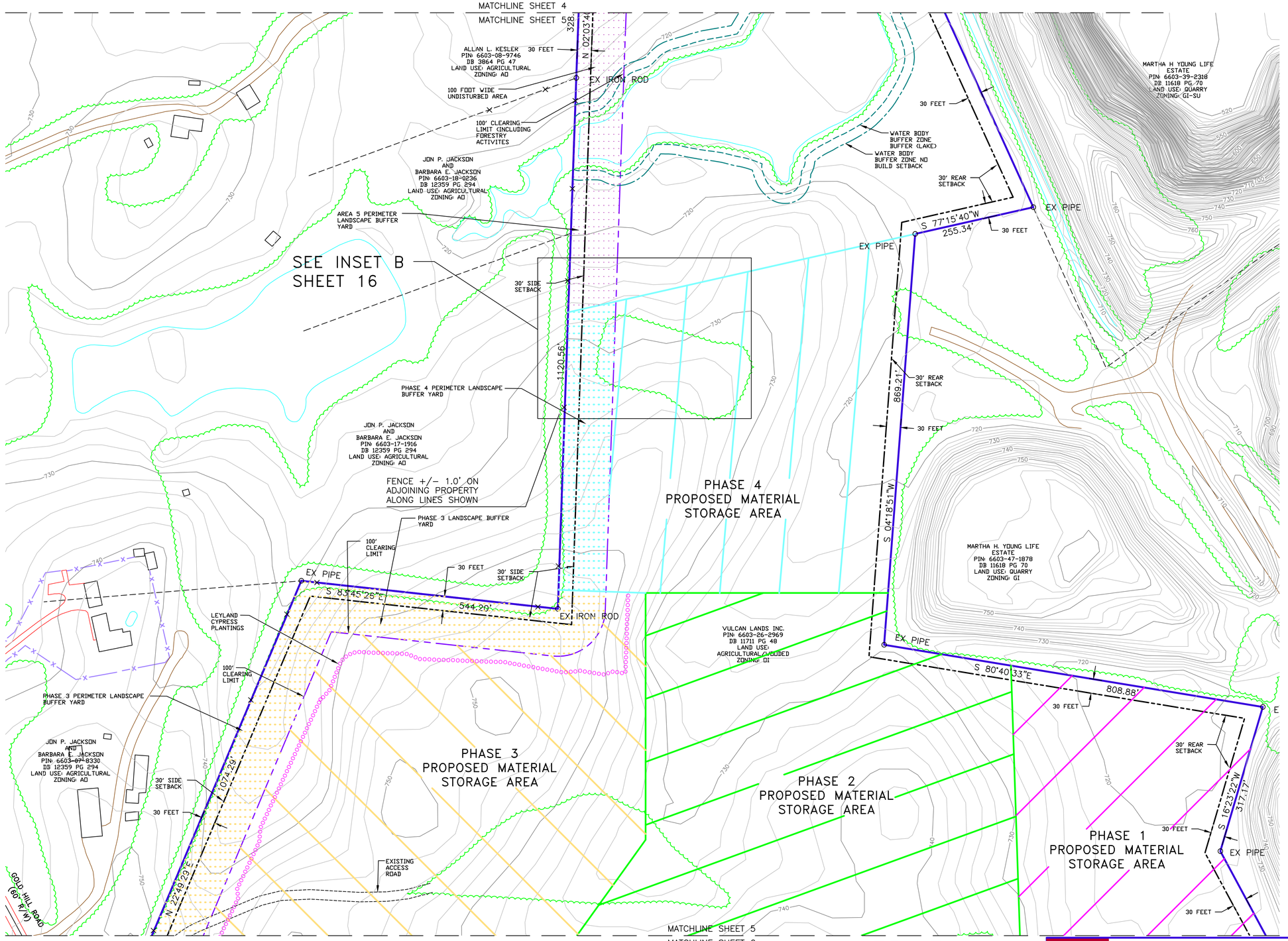
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 4
OF: 21

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 REMOVED EXCESS DATA FROM LOCATION MAP 5-18-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



2' CONTOURS ARE BASED ON THE 2007 LIDAR DATA PROVIDED BY THE NC FLOODPLAIN MAPPING PROGRAM.
HORIZONTAL DATUM: NORTH CAROLINA, NAD83, US FT
VERTICAL DATUM: NAVD88

PLANIMETRIC MAPPING (EXCLUDING CONTOURS) PROVIDED BY TUCK MAPPING SOLUTIONS, INC. MAPPING IS BASED ON AN AERIAL PHOTO DATED 3-20-20 AND A MAP ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

MINE LEGEND

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- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
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- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
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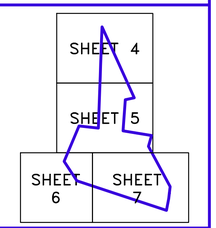
SITE PLAN SHEET LEGEND



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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...
5-18-21

Vulcan Materials Company

0 100 200 300

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

alley, williams, carmen, & king, inc.
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FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
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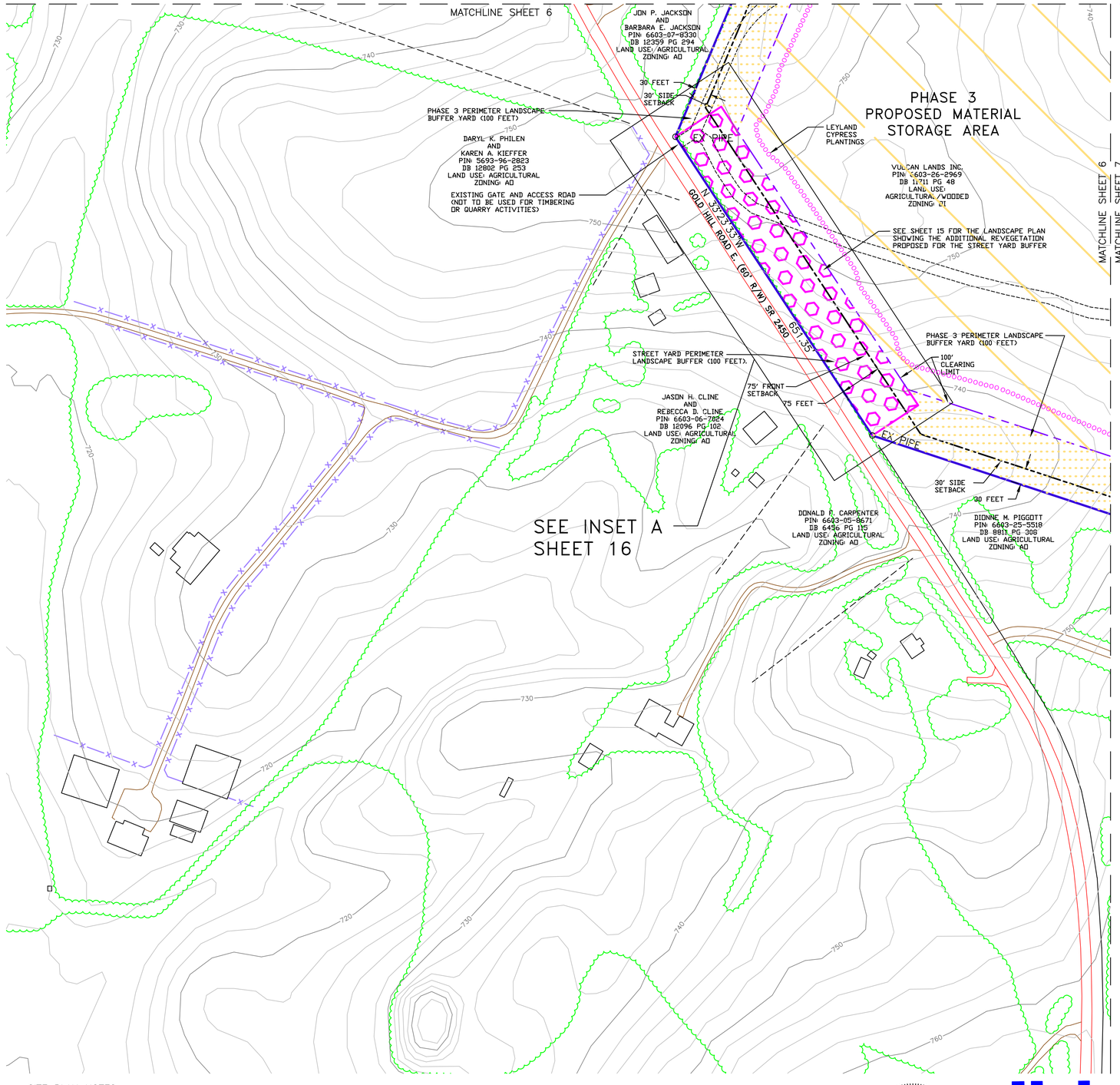
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 5
OF: 21



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- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
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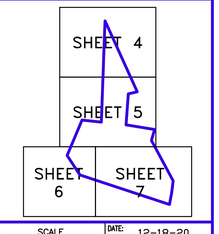
SITE PLAN SHEET LEGEND



SITE PLAN NOTES:
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2. STREET YARD BUFFER IS TO BE PROVIDED ALONG GOLD HILL ROAD E. SEE NOTE NO. 4 ON SHEET 2
3. SEE THE SHEETS 10 THROUGH 14 FOR THE PHASED GRADING ASSOCIATED WITH THE DEVELOPMENT OF THE MATERIAL STORAGE AREA.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3A0D005E6BA648B...
5-18-21

Vulcan Materials Company

0 100 200 300

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

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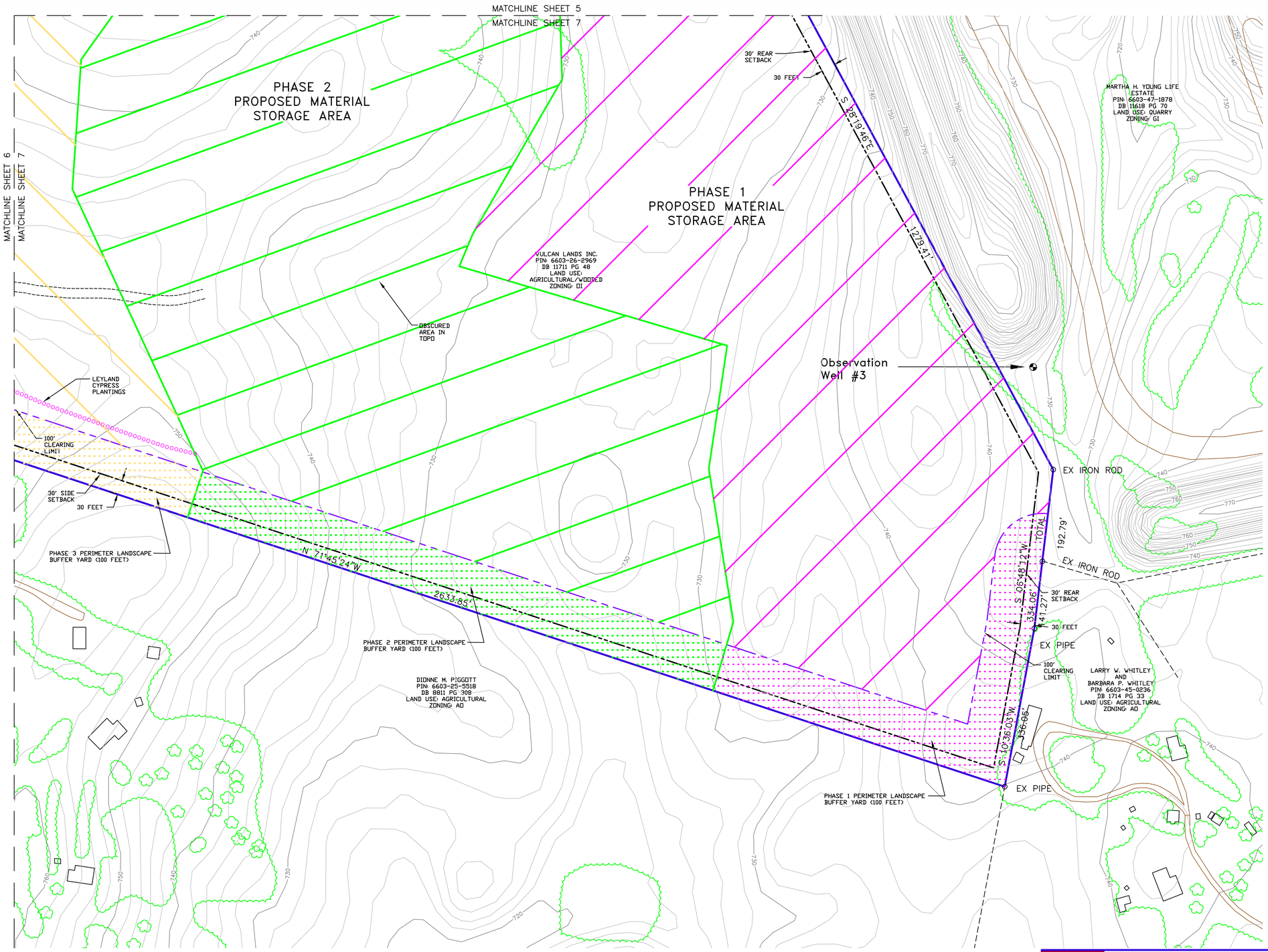
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 6
OF: 21



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- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
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- WATER
- PAVED ROAD
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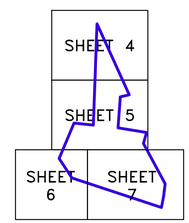
SITE PLAN SHEET LEGEND



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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3A0D005E6BA648B... 5-18-21

Vulcan Materials Company

0 100 200 300

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

alley, williams, carmen, & king, inc.
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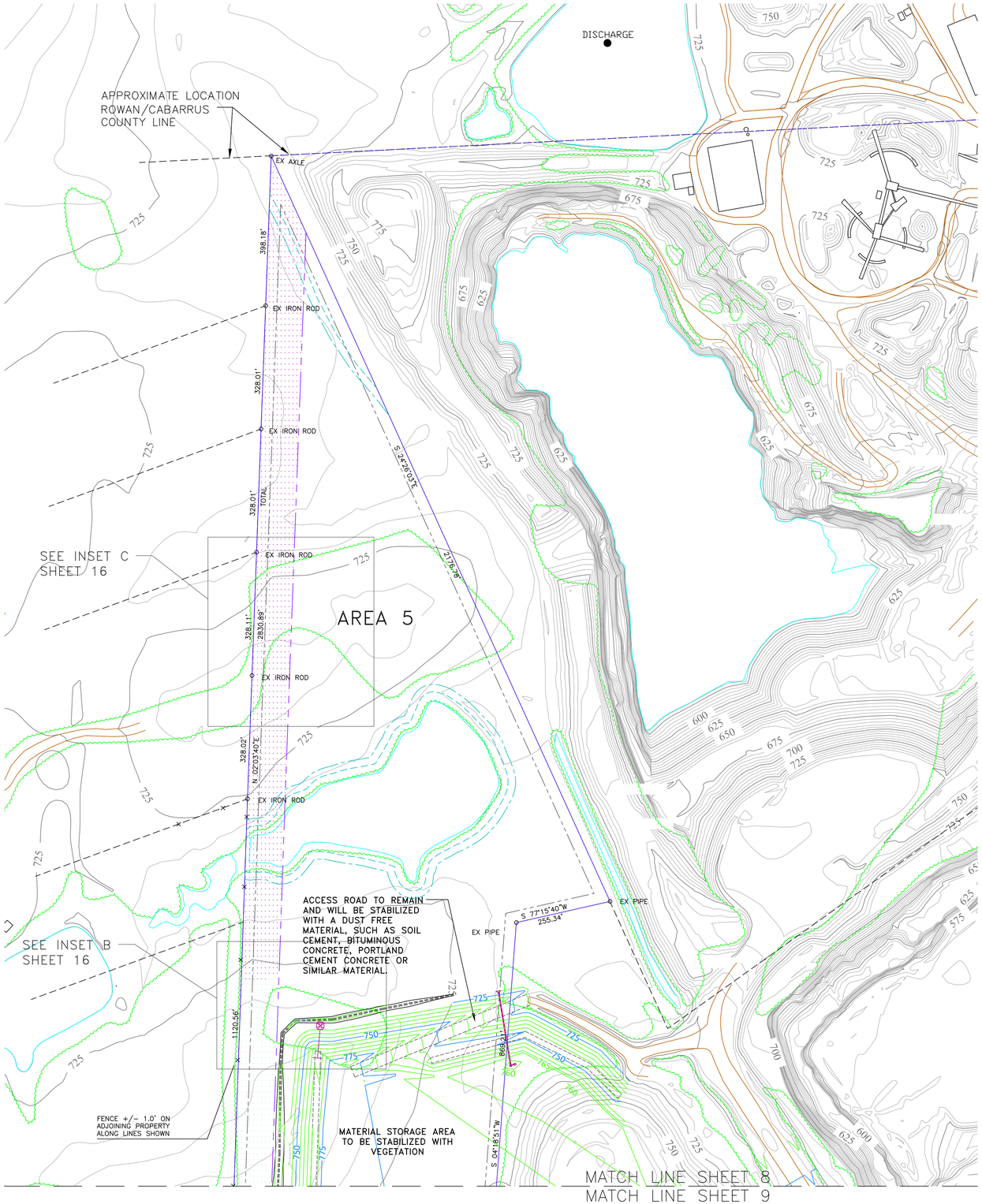
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 7
OF: 21



REV#1 PER CABARRUS COUNTY 3-23-21

GOLD HILL QUARRY
CABARRUS COUNTY

REVEGETATION PLAN
SPRING - FALL - WINTER SEED MIXES

SPRING RATE MARCH - JUNE

Rye Grain	15 - 20 lbs. per acre
Tall Fescue	40 - 80 lbs. per acre
Switchgrass	8 lbs. per acre
Va 70 Shrub Lespedeza	20 lbs. per acre
Sericea Lespedeza	15 - 20 lbs. per acre
Or Red Clover	8 - 14 lbs. per acre
Hulled Common Bermuda Grass	4 lbs. per acre
Or Weeping Love Grass	2 - 4 lbs. per acre

FALL RATE (MID) AUGUST - OCTOBER

Rye Grain	40 lbs. per acre
Tall Fescue	80 lbs. per acre
Sericea Lespedeza (Unscarified)	40 lbs. per acre
Orchard Grass	30 lbs. per acre
White Clover	5 lbs. per acre

WINTER RATE NOVEMBER - FEBRUARY

Rye Grain	40 lbs. per acre
Unhulled Bermuda Grass	10 lbs. per acre
Unscarified Sericea Lespedeza	30 lbs. per acre
Tall Fescue	80 lbs. per acre

FERTILIZER ALL SEASONS

10 - 20 - 20	1500 lbs. per acre
Lime	4000 lbs. per acre
Mulch	70 bales per acre

Mulch to be anchored by one of the following methods:

1. Crimping with mulch anchoring tool; or
2. Tack with asphalt emulsion - 400 gal. per acre or
3. 1500 pounds/acre fiber mulch

MINE LEGEND

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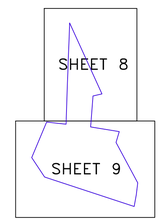
- PHASE 1 / PHASE 2
- PHASE 3 / PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1 / PHASE 2
- PHASE 3 / PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER



RECLAMATION
PLAN
SHEET LEGEND

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3A0C005E6BA648B...

3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

Vulcan Materials Company

0 200 400 600

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE	
PLAN: 1" = 150'	DATE: 12-18-20
PROFILE	DRAWN BY: RCC
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2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

RECLAMATION PLAN

JOB NO. 11526
SHEET NO. 8
OF: 21

MATCH LINE SHEET 8
MATCH LINE SHEET 9

LEYLAND CYPRESS TREES TO REMAIN

MATERIAL STORAGE AREA TO BE STABILIZED WITH VEGETATION. SEE SHEET 8 FOR SEEDING SCHEDULE

ACCESS GATE TO REMAIN. EXISTING ACCESS ROAD TO BE STABILIZED WITH VEGETATION.

LEYLAND CYPRESS TREES TO REMAIN

GOLD HILL ROAD E (60' R/W)

SEE INSET A SHEET 16

N

MINE LEGEND

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PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
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SHEET 8
SHEET 9

RECLAMATION PLAN SHEET LEGEND

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER C. WESLEY WEBB

DocuSigned by: B. Wesley Webb 3A0D005E6BA6488...

5-18-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21

Vulcan Materials Company

0 150 300 450

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2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

RECLAMATION PLAN

JOB NO. 11526
SHEET NO. 9
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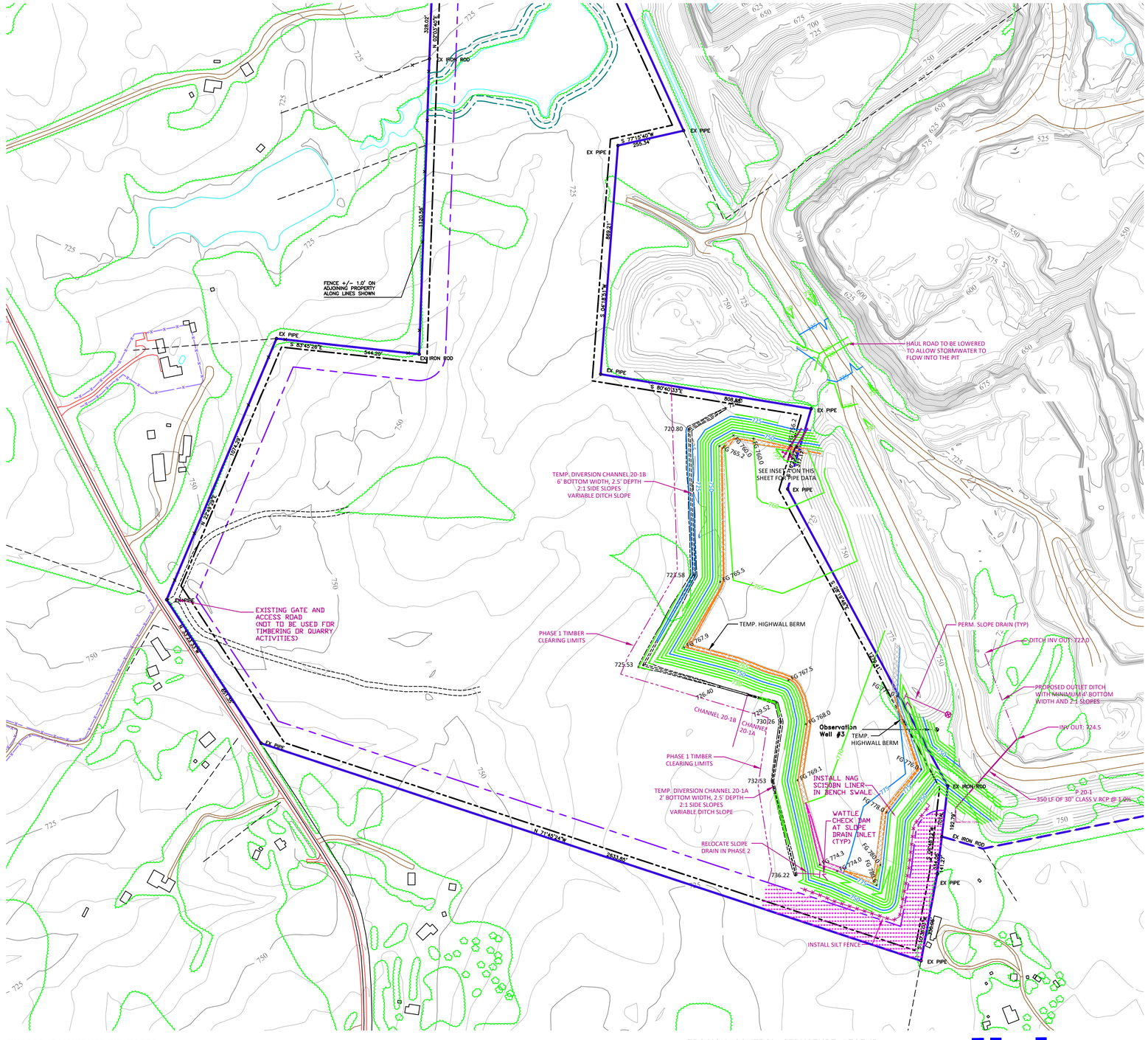
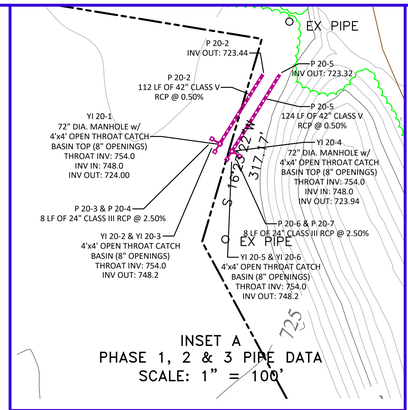




INSET A
PHASE 1, 2 & 3 PIPE DATA
SCALE: 1" = 100'

WESTERN MATERIAL STORAGE AREA - PHASE 1
CONSTRUCTION SEQUENCE

1. INSTALL PIPE 20-1. COMPLETE BACKFILL. SEED AND STABILIZE DISTURBED AREAS AS SOON AS THE PIPE IS INSTALLED.
2. LOWER THE HAUL ROAD TO ALLOW RUNOFF TO ENTER THE PIT.
3. BEGIN TIMBERING IN PHASE 1. ONLY REMOVE TIMBER FROM WITHIN THE PHASE 1 LIMITS. AREA 5 AND PHASES 2, 3, AND 4 WILL REMAIN WOODED. LEAVE STUMPS IN PLACE UNTIL EROSION CONTROL MEASURES AREA INSTALLED. ACCESS FOR TIMBERING EQUIPMENT AND LOGGING TRUCKS WILL BE THROUGH THE MINE SITE. THE ACCESS ROAD ON GOLD HILL ROAD EAST WILL NOT BE USED FOR THIS PHASE.
4. BEGIN CLEARING THE AREA WHERE SILT FENCE, TEMPORARY DIVERSION BERM, AND TEMPORARY DIVERSION DITCHES WILL BE INSTALLED.
5. INSTALL THE SILT FENCE,THE TEMPORARY DIVERSION BERM, DIVERSION CHANNEL 20-1A AND TEMPORARY DIVERSIONS IN THE LOCATIONS SHOWN ON THE PLAN. THE TEMPORARY DIVERSION BERM ON THE SOUTHERN END OF THE PROJECT AREA (SEE INSET B) WILL PREVENT ANY RUNOFF FROM FLOWING SOUTH. RUNOFF WILL POND IN THE UPSTREAM BASIN AREA WILL OVERFLOW UPSTREAM OF THE BASIN AND FLOW NORTH AND WEST . STABILIZE THE DISTURBED AREAS WITH A GROUNDCOVER.
6. CLEAR THE REST OF THE AREA WHERE DIVERSION CHANNEL 20-1B WILL BE CONSTRUCTED.
7. INSTALL DIVERSION CHANNEL 20-1B AND STABILIZE WITH A GROUNDCOVER.
8. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 1.
9. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE SOUTHERN EDGE TO CONSTRUCT THE EXTERIOR SLOPE AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
10. BRING THE SOUTHERN EDGE OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAIN. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. THE DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
11. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE SOUTHERN SLOPE AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
12. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA, ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-1A AND 20-1B OR THE PIT. DIVERSION CHANNEL 20-1A AND 20-1B WILL NOT COLLECT RUNOFF UNTIL ENOUGH FILL HAS BEEN PLACED IN THE STORAGE AREA TO FORCE RUNOFF TO FLOW TOWARDS DIVERSION CHANNEL 20-1A AND 20-1B.
13. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
14. ONCE THE MATERIAL STORAGE PLACEMENT BEGINS IN THE NORTHERN END OF PHASE ONE, INSTALL PIPES P 20-3 AND P 20-5 AND MANHOLES YI 20-3 AND YI 20-4. INSTALL THE MANHOLES IN SECTIONS AND USE THE OPEN MANHOLES FOR INLET DRAINS. INSTALL A STORAGE AREA AROUND THE INLET AND INSTALL A TEMPORARY TRASH RACK. ONCE THE AREAS SURROUNDING THE MANHOLE HAS BEEN FILLED, INSTALL ANOTHER SECTION OF THE MANHOLE RISER. SEE THE INLET SUMP DETAIL ON SHEET 8.
15. AS THE MATERIAL STORAGE AREA IS BEING BROUGHT TO GRADE, INSTALL YI 20-4, YI 20-5, YI 20-7, AND YI 20-8 AND INSTALL THE OPEN TOP CATCH BASINS INLETS ON THE MANHOLES.
16. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
17. INSTALL HIGH WALL PROTECTION ALONG THE TOP OF THE FILL SLOPE AT ALL TIMES
18. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
19. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

THE TOPOGRAPHIC MAP WAS ORIGINALLY ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER WESLEY WEBB
Docusigned by: G. Wesley Webb 3ADD05E6BA6488...
6-1-21

PHASED CONSTRUCTION NOTES:
1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 1 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

SCALE : 1" = 200'

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21
REV#3 CLARIFIED CLEARING LIMITS 6-1-21

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET, KANNAPOLIS, NC 28082
P.O. BOX 1248, 704/938-1515

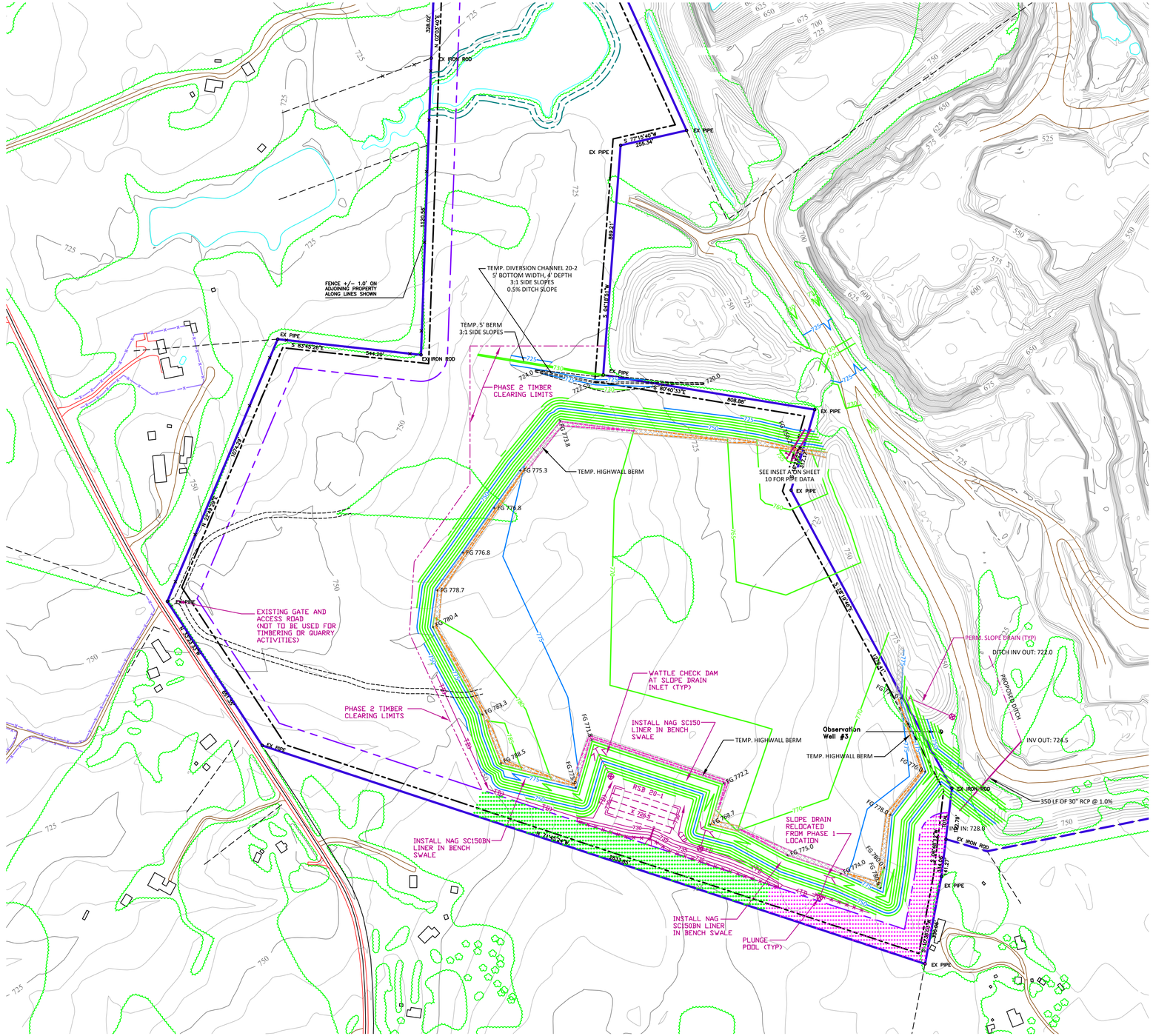
SCALE	
PLAN:	1" = 200'
PROFILE	
HORIZ.:	
VERT.:	

DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 1
GRADING PLAN

JOB NO.	11526
SHEET NO.	10
OF:	21



PHASED CONSTRUCTION NOTES:

1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1 AND PHASE 2 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 2 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21
REV#3 CLARIFIED CLEARING LIMITS 6-1-21

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE (SF)

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

WESTERN MATERIAL STORAGE AREA - PHASE 2
CONSTRUCTION SEQUENCE

1. BEGIN TIMBERING IN PHASE 2. ONLY REMOVE TIMBER FROM THE PHASE 2 LIMITS. AREA 5 AND PHASES 3 AND 4 WILL REMAIN WOODED. LEAVE STUMPS IN PLACE UNTIL EROSION CONTROL MEASURES AREA INSTALLED. ACCESS FOR TIMBERING EQUIPMENT AND LOGGING TRUCKS WILL BE THROUGH THE MINE SITE. THE ACCESS ROAD ON GOLD HILL ROAD EAST WILL NOT BE USED FOR THIS PHASE.
2. CLEAR ENOUGH AREA TO INSTALL THE EROSION CONTROL MEASURES IN PHASE 2.
3. INSTALL THE SILT FENCE, RSB 20-1, TEMPORARY DIVERSION CHANNEL 20-2 AND THE ADJACENT TEMPORARY BERM, AND TEMPORARY DIVERSIONS IN THE LOCATIONS SHOWN ON THE PLAN.
4. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 2 AND THE AREA WHERE DIVERSION CHANNEL 20-2 IS LOCATED.
5. INSTALL DIVERSION CHANNEL 20-2B AND STABILIZE WITH A GROUNDCOVER.
6. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE SOUTHERN EDGE TO CONSTRUCT THE EXTERIOR SLOPE AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
7. BRING THE SOUTHERN EDGE OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAIN. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
8. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE SOUTHERN SLOPE AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
9. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-2 OR THE INLETS INSTALLED DURING PHASE 1.
10. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
11. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
12. INSTALL HIGH WALL BARRIERS ALONG THE TOP OF THE SLOPE AS THE FILL IS BEING PLACED.
13. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
14. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

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HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541

MINE LEGEND

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- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
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- INDEX CONTOUR (3500)
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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER WESLEY WEBB

DocuSigned by: W. Wesley Webb 3A0D005E6BA548B...

6-1-21

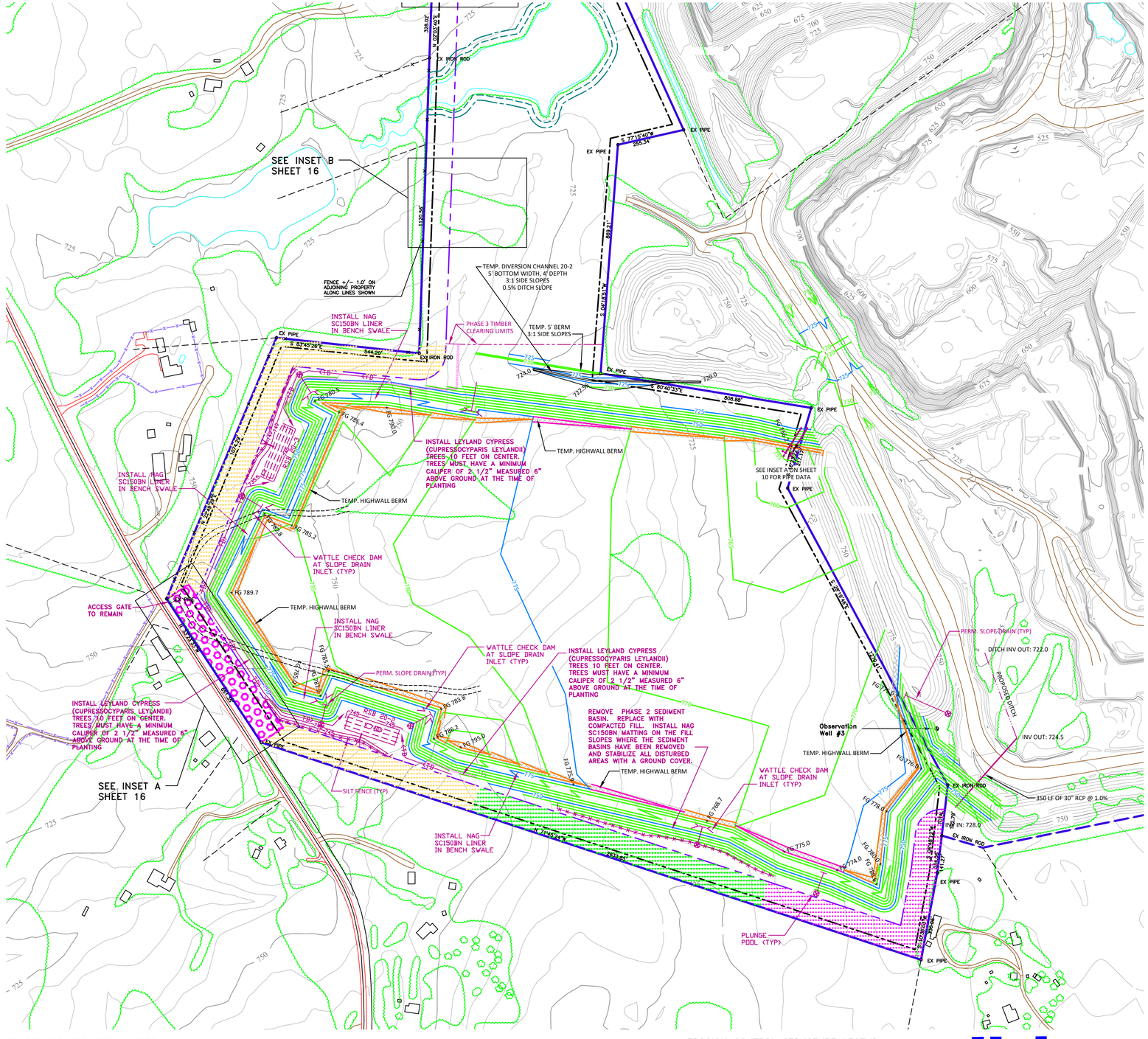
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-17-20
PLAN: 1" = 200'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 2
GRADING PLAN

JOB NO. 11526
SHEET NO. 11
OF: 21


SEE INSET B
SHEET 16
SEE INSET A
SHEET 16
SEE INSET A ON SHEET
10 FOR PIPE DATA
FENCE +/- 1.0' ON
ADJOINING PROPERTY
ALONG LINES SHOWN
TEMP. DIVERSION CHANNEL 20-2
5' BOTTOM WIDTH, 4' DEPTH
3:1 SIDE SLOPES
0.5% DITCH SLOPE
TEMP. 5' BERM
3:1 SIDE SLOPES
PHASE 3 TIMBER
CLEARING LIMITS
INSTALL NAG
SC150BN LINER
IN BENCH SWALE
INSTALL LEYLAND CYPRESS
(CUPRESSOCYPARIS LEYLANDII)
TREES 10 FEET ON CENTER.
TREES MUST HAVE A MINIMUM
CALIPER OF 2 1/2" MEASURED 6"
ABOVE GROUND AT THE TIME OF
PLANTING
TEMP. HIGHWALL BERM
WATTLE CHECK DAM
AT SLOPE DRAIN
INLET (TYP)
ACCESS GATE
TO REMAIN
PERM. SLOPE DRAIN (TYP)
SILT FENCE (TYP)
REMOVE PHASE 2 SEDIMENT
BASIN. REPLACE WITH
COMPACTED FILL. INSTALL NAG
SC150BN MATTING ON THE FILL
SLOPES WHERE THE SEDIMENT
BASINS HAVE BEEN REMOVED
AND STABILIZE ALL DISTURBED
AREAS WITH A GROUND COVER.
PLUNGE
POOL (TYP)
PERM. SLOPE DRAIN (TYP)
DITCH INV OUT: 722.0
PROPOSED PATCH
INV OUT: 724.5
Observation
Well #3
350 LF OF 30" RCP @ 1.0%
EX IRON ROD
EX PIPE
RSB 20-2
RSB 20-3
TD 20-1
TD 20-2
TD 20-3
FG 785.4
FG 790.0
FG 789.7
FG 785.2
FG 785.8
FG 785.3
FG 785.6
FG 795.0
FG 775.0
FG 774.0
FG 778.0
FG 788.7
FG 778.8
FG 788.6
FG 788.4
FG 788.5
FG 779.8
FG 780.0
FG 780.5
FG 780.6
FG 780.7
FG 780.8
FG 781.0
FG 781.1
FG 781.2
FG 781.3
FG 781.4
FG 781.5
FG 781.6
FG 781.7
FG 781.8
FG 781.9
FG 782.0
FG 782.1
FG 782.2
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FG 782.5
FG 782.6
FG 782.7
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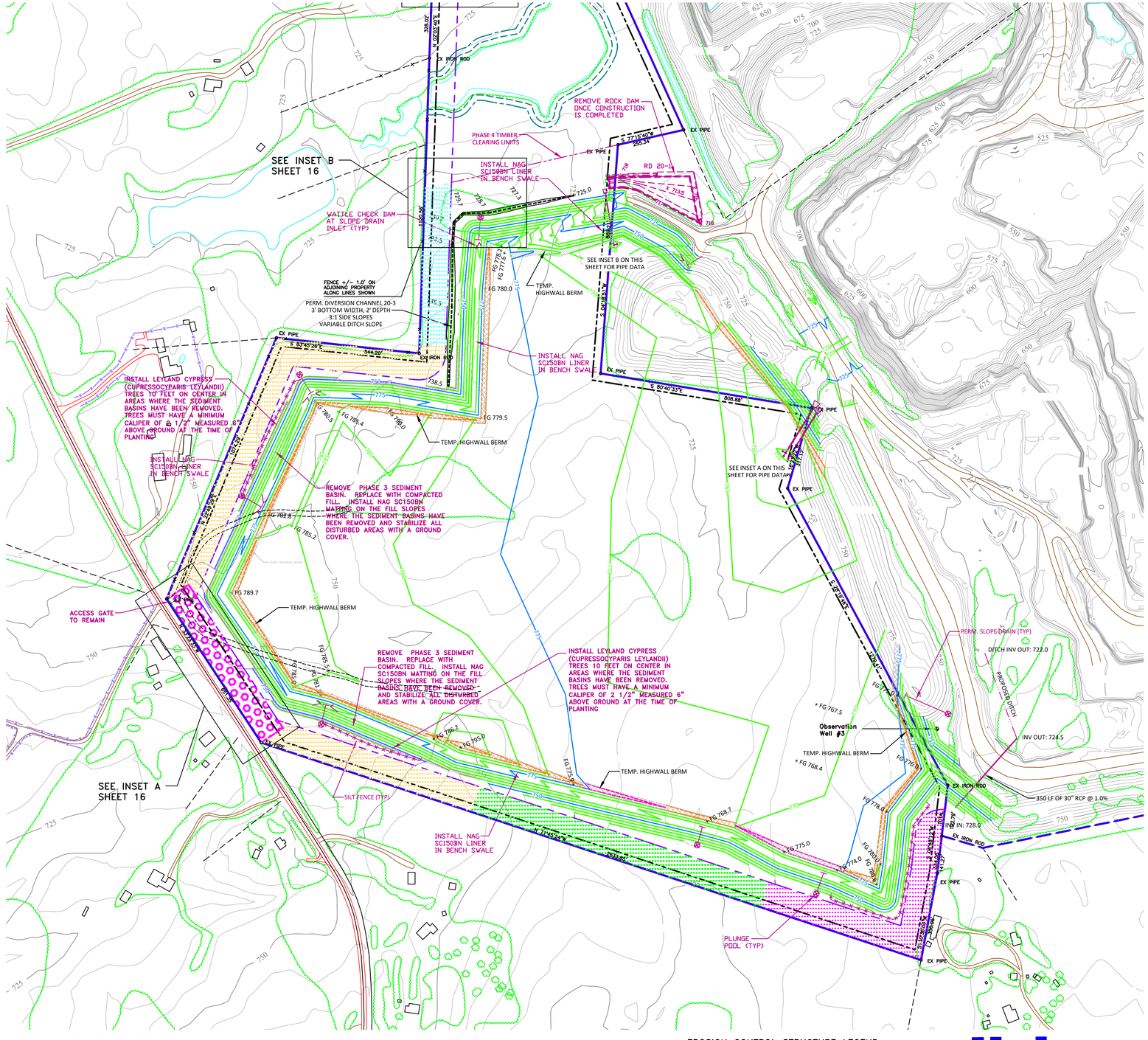
FG 782.9
FG



PHASED CONSTRUCTION NOTES:

1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1, 2, 3 AND 4 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 4 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE SHEET 2 FOR NOTES CONCERNING THE PROPOSED PLANTINGS. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

SCALE : 1" = 200'

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21
REV#3 CLARIFIED CLEARING LIMITS 6-1-21

EROSION CONTROL STRUCTURE LEGEND

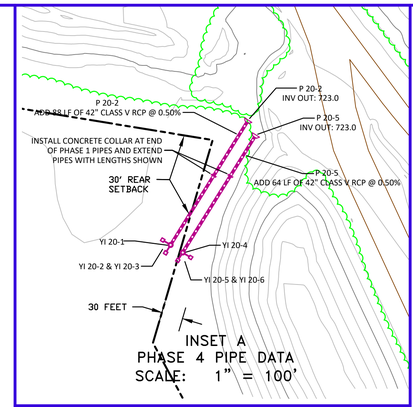
- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

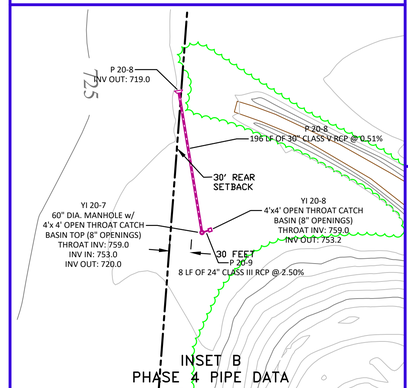
Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



INSET A
PHASE 4 PIPE DATA
SCALE: 1" = 100'



INSET B
PHASE 4 PIPE DATA
SCALE: 1" = 100'

WESTERN MATERIAL STORAGE AREA - PHASE 4
CONSTRUCTION SEQUENCE

1. BEGIN TIMBERING IN PHASE 3. ONLY REMOVE TIMBER FROM THE PHASE 3 LIMITS. AREA 5 WILL REMAIN WOODED. LEAVE STUMPS IN PLACE UNTIL EROSION CONTROL MEASURES AREA INSTALLED. ACCESS FOR TIMBERING EQUIPMENT AND LOGGING TRUCKS WILL BE THROUGH THE MINE SITE. THE ACCESS ROAD ON GOLD HILL ROAD EAST WILL NOT BE USED FOR THIS PHASE.
2. CLEAR ENOUGH AREA TO INSTALL THE EROSION CONTROL MEASURES IN PHASE 4.
3. INSTALL ROCK DAM RD-20 AND DIVERSION CHANNEL 20-3. INSTALL A PERMANENT GROUND COVER IN DIVERSION CHANNEL 20-3.
4. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 4. TIMBER REMOVAL WILL BE LIMITED TO THIS PHASE. AREA 5 WILL REMAIN WOODED.
5. INSTALL SILT FENCE BELOW THE SEDIMENT BASINS IN PHASE 3. FILL RSB 20-3 AND RSB 20-4 AND REMOVE THE TEMPORARY DIVERSION CHANNELS IN THIS AREA. STABILIZE THE DISTURBED AREAS WITH A GROUND COVER. INSTALL LEYLAND CYPRESS TREES ON THE TOE OF THE FILL SLOPE FOR THE LENGTH OF THE NEWLY CONSTRUCTED EMBANKMENT IN PHASE 3.
6. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE WESTERN EDGE TO CONSTRUCT THE EXTERIOR SLOPES AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
7. BRING THE WESTERN EDGE OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAINS. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
8. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE WESTERN SLOPE AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
9. EXTEND PIPES 20-2 AND 20-5 AND BACKFILL WHILE STORAGE MATERIAL IS BEING PLACED IN THIS AREA. BRING THE AREA BETWEEN THE EXISTING STORAGE BERM AND YI 20-3 (INSTALLED IN PHASE 1) TO GRADE.
10. ONCE THE MATERIAL STORAGE PLACEMENT BEGINS IN THE NORTHERN END OF PHASE FOUR, INSTALL PIPE 20-8 AND MANHOLE YI 20-1. INSTALL THE MANHOLE IN SECTIONS AND USE THE OPEN MANHOLES FOR INLET DRAINS. INSTALL A STORAGE AREA AROUND THE INLET AND INSTALL A TEMPORARY TRASH RACK. ONCE THE AREAS SURROUNDING THE MANHOLE HAS BEEN FILLED, INSTALL ANOTHER SECTION OF THE MANHOLE RISER. SEE THE INLET SUMP DETAIL ON SHEET 8.
11. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-3, ROCK DAM RD 20-1, INLET YI 20-1 OR THE INLETS INSTALLED DURING PHASE 1.
12. AS THE MATERIAL STORAGE AREA IS BEING BROUGHT TO GRADE, INSTALL YI 20-2 AND PIPE P-9. INSTALL THE OPEN TOP CATCH BASINS INLETS ON THE MANHOLES.
13. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
14. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
15. INSTALL HIGH WALL BARRIERS ALONG THE TOP OF THE SLOPE AS THE FILL IS BEING PLACED.
16. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
17. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.
18. ONCE STABILIZATION OF THE MATERIAL STORAGE AREA IS COMPLETED, ROCK DAM RD 20-1 MAY BE REMOVED. STABILIZE ANY DISTURBED AREAS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

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3/20/20

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VERTICAL DATUM: NAVD88, GEOID 1999

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- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
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MAPPING LEGEND

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- POLE
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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb
3ADD005E6BA648B...

6-1-21

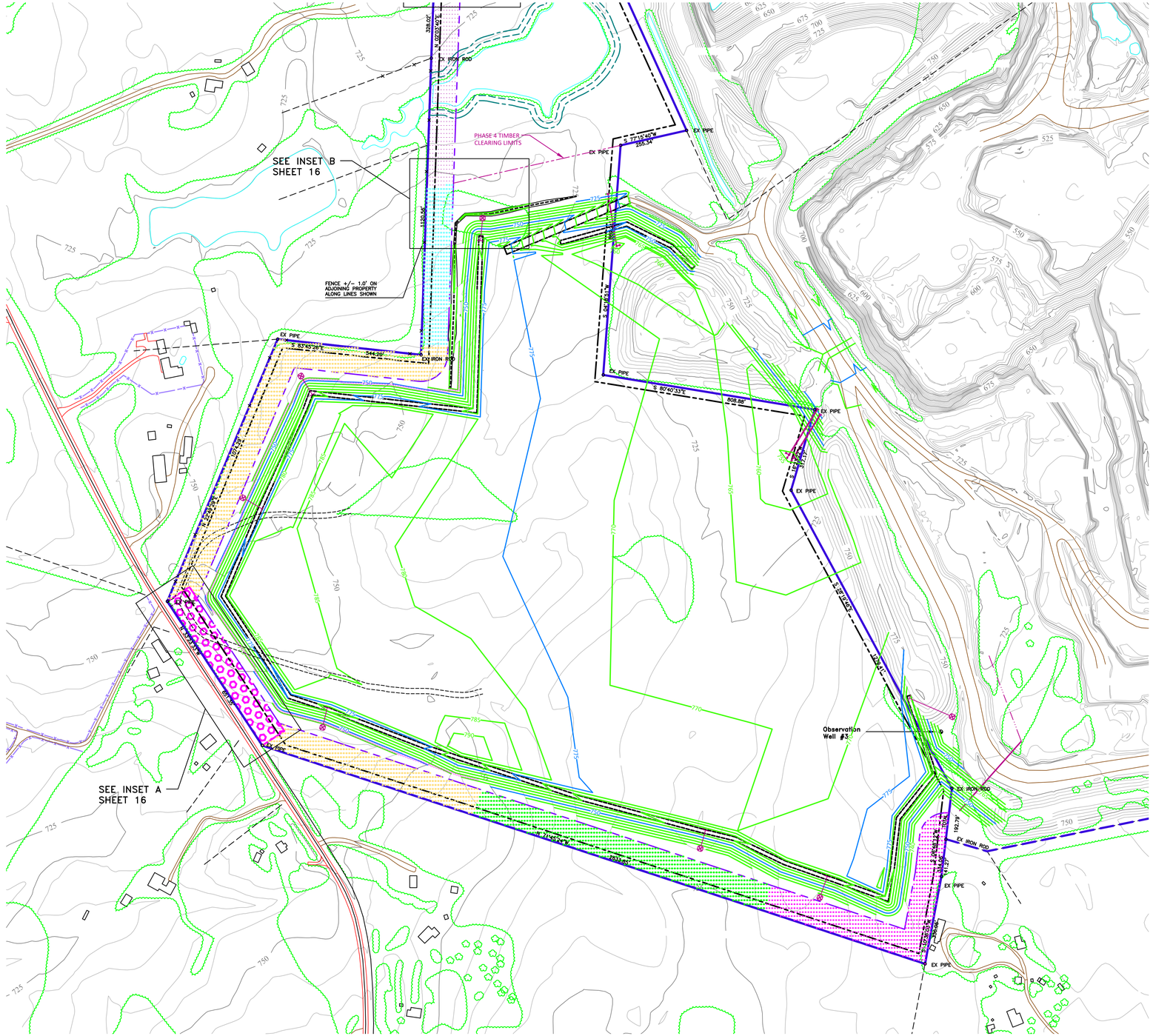
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET, KANNAPOLIS, NC 28082
P.O. BOX 1248, 704/938-1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 4
GRADING PLAN

JOB NO. 11526
SHEET NO. 13
OF: 21



COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

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- PHASE 3
- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
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- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3A0D005E6BA648B...

6-1-21

REV#1 PER CABARRUS COUNTY 3-23-21
REV#2 PER COMMUNITY MEETING 5-18-21
REV#3 CLARIFIED CLEARING LIMITS 6-1-21

PHASED CONSTRUCTION NOTES:
1. THE GRADING SHOWN ON THIS SHEET REFLECTS THE FINAL SITE DEVELOPMENT OF PHASES 1, 2, 3 AND 4 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

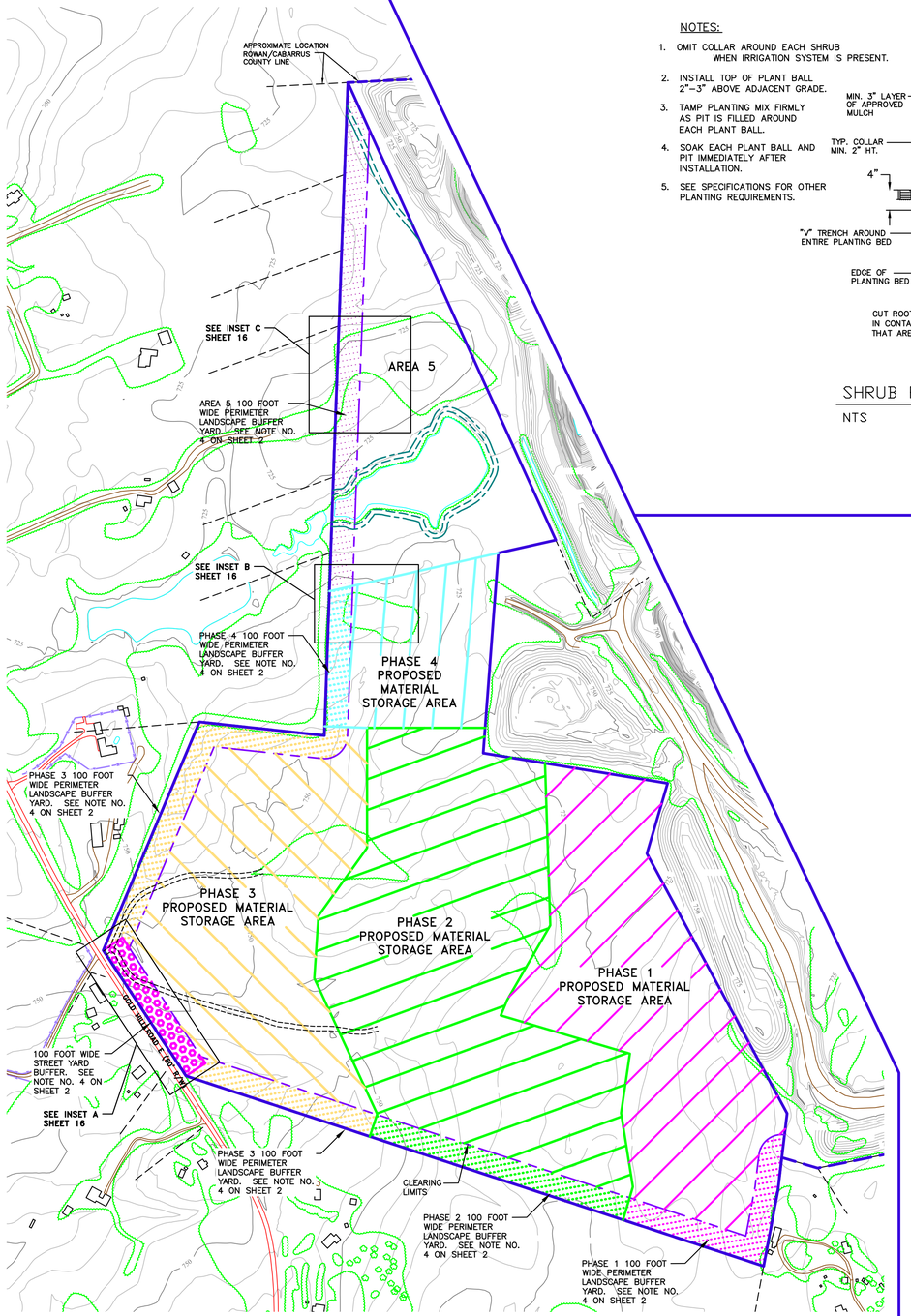
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE	
PLAN:	1" = 200'
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

FINAL SITE GRADING

JOB NO. 11526
SHEET NO. 14
OF: 21

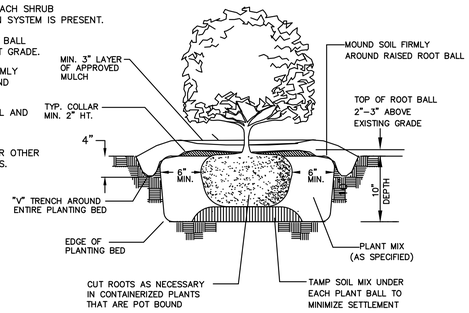


SCALE
1" = 300'

0 300 600 900

BUFFER YARD NOTES:
1. PERIMETER LANDSCAPE BUFFER YARDS AND THE STREET YARD BUFFER ARE TO BE 100 FEET WIDE AND REMAIN UNDISTURBED, EXCEPT FOR THE PLANTING OF ANY TREES OR SHRUBS REQUIRED FOR SCREENING
2. SEE NOTE NO. 4 ON SHEET TWO FOR A DESCRIPTION OF THE BUFFER REQUIREMENTS.
3. LANDSCAPE PLANTINGS AND LAYOUT DESIGNED BY JEFF YOUNG, RLA

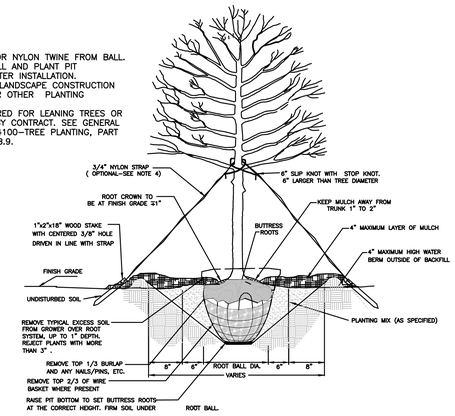
NOTES:
1. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
2. INSTALL TOP OF PLANT BALL 2"–3" ABOVE ADJACENT GRADE.
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.
5. SEE SPECIFICATIONS FOR OTHER PLANTING REQUIREMENTS.



SHRUB PLANTING DETAIL

NTS

NOTES:
1. REMOVE WIRE OR NYLON TWINE FROM BALL.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
3. SEE ATTACHED LANDSCAPE CONSTRUCTION STANDARDS FOR OTHER PLANTING REQUIREMENTS.
4. STAKING REQUIRED FOR LEANING TREES OR AS REQUIRED BY CONTRACT. SEE GENERAL NOTES: SEC. 04100–TREE PLANTING, PART 3 PARAGRAPH B.9.



ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES")

FOR EXAMPLE:	CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
	2"	12–14'	16'	24"	16"
	3"	14–16'	18'	32"	21"

TREE PLANTING

NTS

GOLD HILL QUARRY
CABARRUS COUNTY

REVEGETATION PLAN
SPRING – FALL – WINTER SEED MIXES

SPRING RATE MARCH – JUNE

Rye Grain	15 – 20 lbs. per acre
Tall Fescue	40 – 80 lbs. per acre
Switchgrass	8 lbs. per acre
Va 70 Shrub Lespedeza	20 lbs. per acre
Sericea Lespedeza	15 – 20 lbs. per acre
Dr Red Clover	8 – 14 lbs. per acre
Hulled Common Bermuda Grass	4 lbs. per acre
Dr Weeping Love Grass	2 – 4 lbs. per acre

FALL RATE (MID) AUGUST – OCTOBER

Rye Grain	40 lbs. per acre
Tall Fescue	80 lbs. per acre
Sericea Lespedeza (Unscarified)	40 lbs. per acre
Orchard Grass	30 lbs. per acre
White Clover	5 lbs. per acre

WINTER RATE NOVEMBER – FEBRUARY

Rye Grain	40 lbs. per acre
Unhulled Bermuda Grass	10 lbs. per acre
Unscarified Sericea Lespedeza	30 lbs. per acre
Tall Fescue	80 lbs. per acre

FERTILIZER ALL SEASONS

10 – 20 – 20	1500 lbs. per acre
Lime	4000 lbs. per acre
Mulch	70 bales per acre

Mulch to be anchored by one of the following methods:

1. Crimping with mulch anchoring tool; or
2. Tack with asphalt emulsion – 400 gal. per acre or
3. 1500 pounds/acre fiber mulch

PLAN MATERIAL SPECIFICATIONS

11.8.1. SIZE STANDARDS
THE MINIMUM ALLOWABLE PLANT FOR NEW INSTALLATIONS SHALL BE AS SET FORTH HEREIN. DUE TO THE VARIATIONS BETWEEN GENUS AND SPECIES, THE CALIPER OR HEIGHT NECESSARY FOR NEWLY INSTALLED PLANT MATERIALS MAY VARY. AS A GENERAL RULE, THE CALIPER OR DIAMETER OF TREES SHALL BE MEASURED 6 INCHES FROM THE GROUND LEVEL UP TO A 4 INCH CALIPER DIAMETER AND AT 12 INCHES FOR A 4 INCH CALIPER DIAMETER OR GREATER. THE HEIGHT OF SHRUBS SHALL BE A MINIMUM OF 24 INCHES AS MEASURED AT GROUND LEVEL TO THE TOP OF THE DENSEST PORTION OF THE TOP OF THE SHRUB OR HEDGE.

A. SHADE TREES
SHADE TREES SHALL MEASURE A MINIMUM 2 TO 2.5 INCH IN CALIPER AND 10 TO 12 FEET IN HEIGHT AT THE TIME OF PLANTING.

B. ORNAMENTAL TREES
ORNAMENTAL TREES SHALL MEASURE A MINIMUM 1.5 TO 2 INCHES IN CALIPER FOR SINGLE–STEM TREES OR 1 TO 1.5 INCHES IN CALIPER FOR MULTI–STEM TREES, AND 6 TO 8 FEET IN HEIGHT.

C. LARGE SHRUBS
LARGE SHRUBS, NORMALLY PLANTED FOR SCREENING, SHALL MEASURE A MINIMUM OF 3 TO 3 ½ FEET IN HEIGHT AT THE THE TIME OF PLANTING.

D. SMALL SHRUBS
SMALL SHRUBS SHALL MEASURE A MINIMUM OF 18 TO 24 INCHES IN SPREAD AND/OR HEIGHT AT THE TIME OF PLANTING. A MIX OF DECIDUOUS AND EVERGREEN SHRUBS IS ENCOURAGED IN ORDER TO OBTAIN A VARIETY OF COLOR AND TEXTURE THROUGHOUT THE YEAR.

E. GROUND COVER (ORGANIC)
ORGANIC GROUND COVERS SHALL PROVIDE 100% COVERAGE ON THE GROUND WITHIN THREE (3) YEARS FROM THE DATE OF INSTALLATION. EXCEPT FOR SEEDING, GRASS OR TURF SHALL PROVIDE 100% COVERAGE UPON INSTALLATION. ORGANIC MULCH MAY BE USED AROUND PLANTINGS TO MAINTAIN SOIL MOISTURE AND PREVENT THE GROWTH OF WEEDS.

F. GROUND COVER (INORGANIC)
INORGANIC GROUND COVERS CONSISTING OF RIVER ROCK OR SIMILAR MATERIALS MAY BE USED PROVIDED THEY DO NOT EXCEED 20% COVERAGE OF THE REQUIRED LANDSCAPE PLANTING AREA.

11.8.2. SELECTION OF PLANT MATERIALS
ALL PLANT MATERIAL EXCEPT GROUND COVERS SHALL BE SELECTED FROM TABLE 9.1–1.– ACCEPTABLE PLANT SPECIES. CONSIDERATION SHALL BE GIVEN TO THE ENVIRONMENTAL CONDITIONS OF THE SITE, SUCH AS SOIL, TOPOGRAPHY, CLIMATE, MICROCLIMATE, PATTERN OF SUN MOVEMENT, PREVAILING WINDS AND PRECIPITATION, AND AIR MOVEMENT TO ENSURE THAT PLANT MATERIALS WILL BE ESTABLISHED SUCCESSFULLY. TREE SELECTION FOR STREET YARDS OR OTHER LOCATIONS WITHIN UTILITY RIGHTS–OF–WAYS SHALL CONSIDER THE PRESENCE OR PLANNED ADDITION OF OVERHEAD UTILITY LINES. SUCH TREES SHALL BE SMALL AND MEDIUM TREES THAT ARE PEST– AND DISEASE–RESISTANT AND ARE SLOW GROWING.

A. SUBSTITUTION OF PLANT MATERIALS
THE ADMINISTRATOR SHALL HAVE THE AUTHORITY TO APPROVE THE INSTALLATION OF COMPARABLE SUBSTITUTION PLANS MATERIALS TO SATISFY THE REQUIREMENTS OF THE APPROVED LANDSCAPE PLAN WHEN THE APPROVED PLANTS AND LANDSCAPE MATERIALS ARE NOT AVAILABLE AT THE TIME THAT INSTALLATIONS ARE TO OCCUR, OR WHEN OTHER UNFORESEEN CONDITIONS PREVENT THE USE OF THE EXACT MATERIALS SHOWN ON THE APPROVED LANDSCAPE PLAN.

B. MIX OF GENUS AND SPECIES ENCOURAGED
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COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

THE TOPOGRAPHIC MAP WAS ORIGINALLY ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 5AD0005E6BA0488...

3-23-21

REV#1 PER CABARRUS COUNTY 3–23–21

Vulcan Materials Company

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938–1515

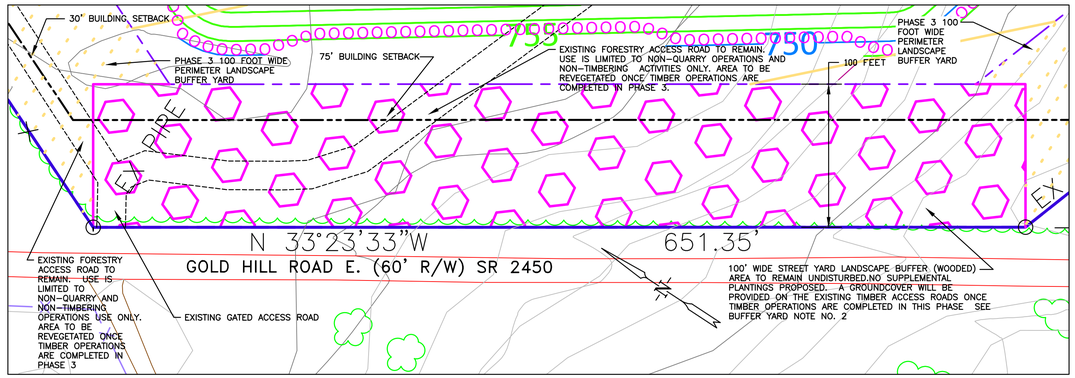
SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

BUFFER PLAN

JOB NO. 11526
SHEET NO. 15
OF: 21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



INSET A
PHASE 3 STREETYARD
1' = 50'

Vulcan Lands, Inc. – Gold Hill – Plant List

Key	Common Name(Botanical Name)	Min. Size	Quantity
SO	Shumard Oak (Quercus shumardii)	3" cal. / 12'–14' ht. / 4'–5' spread	5
OG	October Glory Red Maple (Acer rubrum 'October Glory')	3" cal. / 14'–15' ht. / 4'–5' spread	6
HO	Holly Osmanthus (Osmanthus heterophyllus)	3 gal. container	82
WM	Southern Wax Myrtle (Myrica cerifera)	3 gal. container	83

General Notes:
1. Mulch all plant beds with pine needles, or small size pine bark to a depth of 2 to 3 inches. Mulch beds around trees in lawn areas extending to a minimum radius of 4 feet from the tree trunk. Plant beds around shrubs shall extend a minimum of 1 foot beyond the spread of the shrubs.
2. Irrigate regularly, but do not overwater.
3. Conduct soil tests to determine soil amendment needs.
4. Till all plant beds incorporating compost 6 to 8 inches deep into. Dig tree and shrub pits 2x as wide root ball.
5. Adjustment of pH may be necessary to get soil pH to around 6.5.
6. Plant beds should be built up 6" to 8" above grade.
7. Shrubs shall be 2'–6" to 3' height at planting.
8. Space, mix and arrange shrubs in a naturalistic manner to grow into a visual screen. minimum spacing between shrubs should be no less than 5'. Maximum spacing of shrubs to the next nearest shrub should be no more than 7'.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

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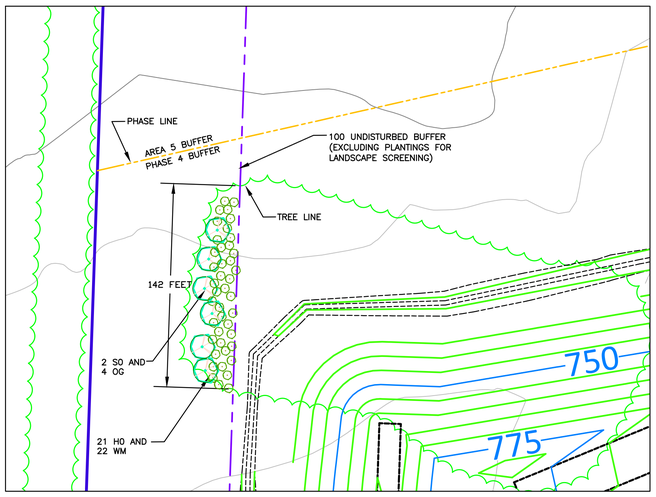
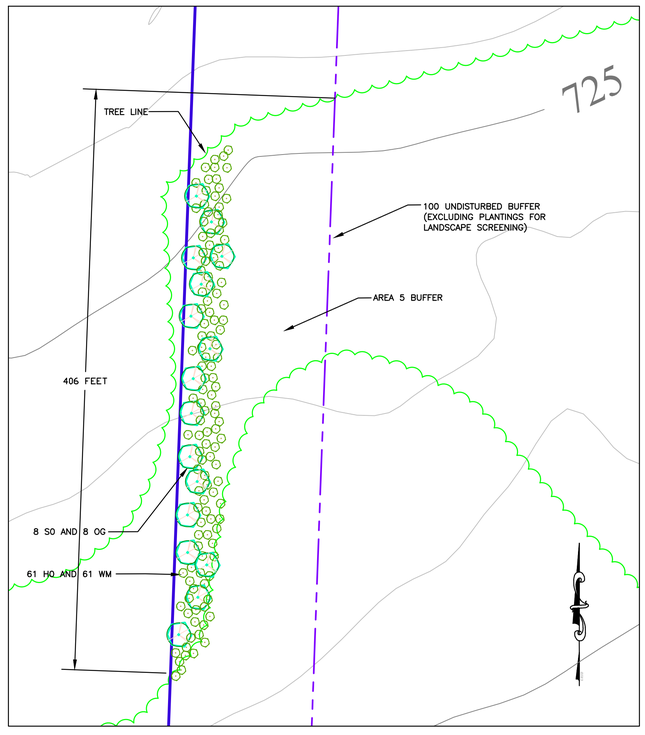


INSET B BUFFER YARD PLANTINGS. BUFFER YARD IS 100' WIDE AND 142' LONG
SUPPLEMENTAL PLANTINGS PROPOSED
ADD 2 SHADE TREES PER 50' FOR A TOTAL OF 6 SHADE TREES
ADD 15 SHRUBS PER 50' FOR A TOTAL OF 43 SHRUBS

INSET B
PHASE 4 PLANTINGS
1' = 50'



INSET C BUFFER YARD PLANTINGS. BUFFER YARD IS 100' WIDE AND 406' LONG
SUPPLEMENTAL PLANTINGS PROPOSED
ADD 2 SHADE TREES PER 50' FOR A TOTAL OF 16 SHADE TREES
ADD 15 SHRUBS PER 50' FOR A TOTAL OF 122 SHRUBS

INSET C
AREA 5 PLANTINGS
1' = 50'

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MINE LEGEND

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- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
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- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
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- SPOT ELEVATION (751.6)
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- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...
5-18-21

BUFFER YARD NOTES:
1. PERIMETER LANDSCAPE BUFFER YARDS AND THE STREET YARD BUFFER ARE TO BE 100 FEET WIDE AND REMAIN UNDISTURBED, EXCEPT FOR THE PLANTING OF ANY TREES OR SHRUBS REQUIRED FOR SCREENING
2. SEE NOTE NO. 4 ON SHEET TWO FOR A DESCRIPTION OF THE BUFFER REQUIREMENTS.
3. LANDSCAPE PLANTINGS AND LAYOUT DESIGNED BY JEFF YOUNG, RLA

REV#2 PER COMMUNITY MEETING 5–18–21

Vulcan Materials Company

0 50 100 150

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

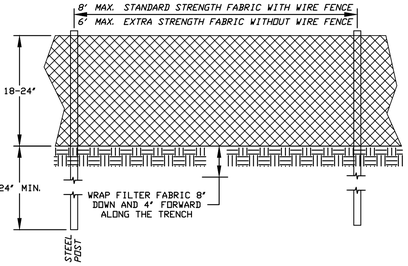
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938–1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	3-23-21
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

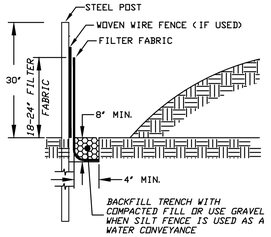
BUFFER PLAN

JOB NO. 11526
SHEET NO. 16
OF: 21

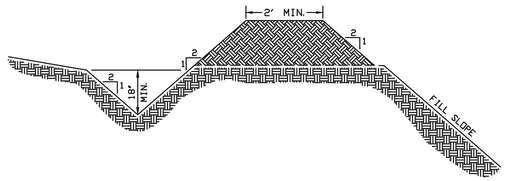


GENERAL NOTES:

1. WOVEN WIRE FENCE SHALL BE A MINIMUM OF 32" HIGH AND SHALL HAVE A MINIMUM OF 5 HORIZONTAL WIRES, VERTICAL WIRES WITH 12" SPACING, MINIMUM 10 GAUGE TOP AND BOTTOM WIRES, MINIMUM 12 1/2 GAUGE ALL OTHER WIRES.
2. FILTER FABRIC SHALL BE MIRAFI 100X FABRIC OR EQUIVALENT.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WASHED STONE SHALL BE USED TO BURY SKIRT WHEN SILT FENCE IS USED ADJACENT TO A CHANNEL, CREEK OR POND.
5. TURN SILT FENCE UP SLOPE AT ENDS.
6. REMOVE SEDIMENT WHEN 12 INCHES DEPTH OF SEDIMENT HAS ACCUMULATED.
7. PROVIDE 4' BETWEEN EACH RUN OF DOUBLE ROW SILT FENCE IN AREAS WHERE DOUBLE ROWS OF SILT FENCE WILL BE INSTALLED.

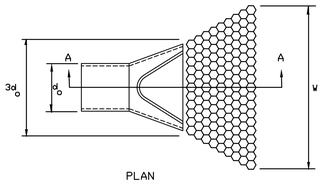


TEMPORARY SILT FENCE



TEMPORARY DIVERSION DITCH

NTS



NOTES:

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. T = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6"
3. IN A WELL DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.

SECTION A-A

OUTLET PROTECTION

CONSTRUCTION SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER FABRIC, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

Location	Pipe Size (in)	Length (ft)	Width (ft)	Use
RSB 20-1	48	21	25	18" OF CLASS I RIPRAP
RSB 20-2	30	16	18.5	18" OF CLASS I RIPRAP
RSB 20-3	30	15	17.5	18" OF CLASS I RIPRAP
P 20-2	42	23	26.5	18" OF CLASS I RIPRAP
P 20-5	42	23	26.5	18" OF CLASS I RIPRAP
P 20-8	30	14	16.5	18" OF CLASS I RIPRAP

SITE NOTES:

1. THIS PLAN DOES NOT PURPORT TO SHOWN ALL EXISTING UTILITIES, LINES, APPURTENANCES, ETC., AND THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, PIPES, VALVES, ETC., AS SHOWN ARE IN A APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES, LINES, PIPES, ETC., BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, PIPES AND VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS WITH EXISTING OR PROPOSED FACILITIES TO DETERMINE IF AN ITEM WILL NEED TO BE RELOCATED.
2. THE ENGINEER HAS MADE NO EXAMINATION TO DETERMINE WHETHER ANY HAZARDOUS OR TOXIC MATERIALS ARE PRESENT OR CONTAINED IN, UNDER OR ON THE SUBJECT PROPERTY OR ITS WATERS, OR IF ANY HAZARDOUS OR TOXIC MATERIALS HAVE CONTAMINATED THIS OR OTHER PROPERTIES OR ITS WATERS IN ANY WAY WHATSOEVER, NO SUBSURFACE EXAMINATION OF ANY TYPE HAS BEEN MADE BY THE ENGINEER, AND ACCORDINGLY, NO OPINION IS RENDERED AS TO ANY VIOLATION OF ANY ENVIRONMENTAL LAWS OR REGULATIONS, EITHER FEDERAL, STATE, OR LOCAL RELATED TO THE INFORMATION SHOWN ON THIS PLAN AND THE ENGINEER IS IN NO WAY LIABLE FOR ANY VIOLATION OF SUCH ENVIRONMENTAL LAWS SHOULD SUCH EXIST.
3. TO ENSURE PROPER LOCATION OF EXISTING UTILITIES, THE CONTRACTOR SHALL CONTACT NORTH CAROLINA 811 (1-800-632-4949), AT LEAST 48-HOURS PRIOR TO THE START OF ANY SITE EXCAVATION.
4. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY THE OWNER, HIS AGENTS, THE OWNERS REPRESENTATIVES AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE ON THE OWNER'S REPRESENTATIVE OR THE ENGINEER.
5. THE CONTRACTOR SHALL VERIFY ALL SITE ELEVATIONS, CONDITIONS AND SOIL CONDITIONS PRIOR TO CONSTRUCTION. ANY SIGNIFICANT VARIATIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

DEFINITION

A sediment control barrier formed around a storm drain inlet by the use of standard concrete block & gravel.

PURPOSE

To help prevent sediment from entering storm drains before stabilizing the contributing watershed. This practice allows early use of the storm drain system.

CONSTRUCTION SPECIFICATIONS

1 Lay one block on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. Place the bottom row of blocks against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, give lateral support to subsequent rows by placing 2X4 wood studs through block openings.

2 Carefully fit hardware cloth or comparable wire mesh with 1/2 inch openings over all block openings to hold gravel in place.

3 Use clean gravel, 3/4 to 1/2 inch in diameter, placed 2 inches below the top of the block on a 2:1 slope or flatter and smooth it to an even grade. dot #57 washed stone is recommended.

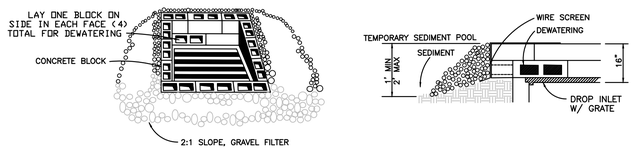
4 If only stone and gravel are used, keep the slope toward the inlet no steeper than 3:1. Leave a minimum 1 ft. wide level stone area between the structure and around the inlet to prevent gravel from entering inlet. On the slope toward the inlet, use stone 3 inches in diameter or larger. On the slope away from the inlet use 1/2 – 3/4 inch gravel (ncdot #57 washed stone) at a minimum thickness of 1 ft.

MAINTENANCE

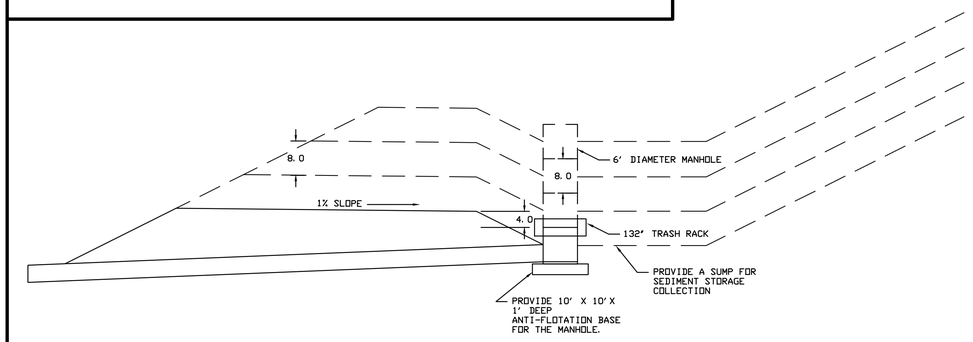
Inspect the barrier after each rain and make repairs as needed.

Remove sediment as necessary to provide adequate storage volume for subsequent rains. When the contributing drainage area has been adequately stabilized, remove all materials and any unstable soil, and either salvage or dispose of it properly.

Bring disturbed area to proper grade, then smooth and compact it. Appropriately stabilize all bare areas around the inlet.



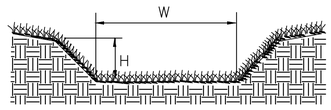
BLOCK & GRAVEL INLET PROTECTION



STAGED FILL FOR MANHOLE STRUCTURES IN HIGH FILL AREAS

NOTE: THE PURPOSE OF THIS DETAIL IS TO PROVIDE A DRAINAGE COLLECTION SYSTEM IN FILL AREAS THAT EXCEED 15 FEET OF HEIGHT.

1. INSTALL THE DISCHARGE BARREL, ANTI-FLOTATION BASE, OUTLET PROTECTION, TRASH RACK AND THE FIRST MANHOLE SECTION.
2. INSTALL BACKFILL OVER THE STORM DRAINAGE PIPE. THE HEIGHT OF THE FIRST LIFT IS A MINIMUM OF 10 FEET. THE TOP OF MANHOLE SHOULD ALWAYS BE A MINIMUM OF 4 FEET BELOW THE EDGE OF THE EXTERIOR FILL SLOPE.
3. MAINTAIN A SUMP AROUND THE TOP OF THE MANHOLE TO HELP COLLECT SEDIMENT.
4. USE TEMPORARY DIVERSIONS TO DIVERT RUNOFF TOWARDS THE MANHOLE. ONCE THE PLACEMENT OF FILL MAKES CONSTRUCTION OF TEMPORARY DIVERSIONS WITH A 1% MINIMUM SLOPE DIFFICULT, RAISE THE FILL OVER THE DISCHARGE PIPE IN 8 FOOT HIGH LIFTS.
5. REMOVE THE TRASH RACK AND INSTALL ANOTHER MANHOLE SECTION. MANHOLE JOINTS SHOULD BE WRAPPED WITH A SEALANT PRIOR TO BACKFILLING AGAINST THE STRUCTURE.
6. REINSTALL THE TRASH RACK AND PLACE COMPACTED FILL IN THE OLD SUMP.
7. CONTINUE TO PLACE FILL UPSTREAM OF THE RISER AND INSTALLING ADDITIONAL MANHOLE SECTIONS AS THE FILL HEIGHT INCREASES.
8. ONCE THE FILL HEIGHT HAS REACHED TO PROPOSED GRADE, REMOVE THE TRASH RACK AND INSTALL A MANHOLE TOP DESIGNED FOR A YARD INLET. CONSTRUCT THE YARD INLETS AND ANY ADDITIONAL DRAINAGE CONNECTIONS SHOWN ON THE PLANS.



GRASS LINED CHANNELS

CONSTRUCTION SPECIFICATIONS

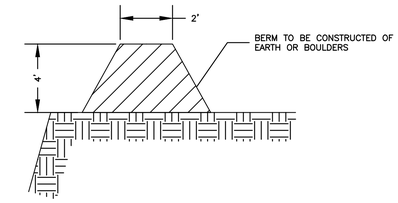
1. REMOVE ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA AND DISPOSE OF PROPERLY.
2. EXCAVATE THE CHANNEL AND SHAPE IT TO NEAT LINES AND DIMENSIONS SHOWN ON THE PLANS PLUS A 0.2-FT OVERCUT AROUND THE CHANNEL PERIMETER TO ALLOW FOR BULKING DURING SEEDBED PREPARATIONS AND SOD BUILDUP.
3. REMOVE AND PROPERLY DISPOSE OF ALL EXCESS SOIL SO THAT SURFACE WATER MAY ENTER THE CHANNEL FREELY.
4. THE PROCEDURE USED TO ESTABLISH GRASS IN THE CHANNEL WILL DEPEND UPON THE SEVERITY OF THE CONDITIONS AND SELECTION OF SPECIES. PROTECT THE CHANNEL WITH MULCH OR A TEMPORARY LINER AS NOTED ON THE PLANS TO WITHSTAND ANTICIPATED VELOCITIES DURING THE ESTABLISHMENT PERIOD.

MAINTENANCE

DURING THE ESTABLISHMENT PERIOD, CHECK GRASS-LINED CHANNELS AFTER EVERY RAINFALL. AFTER GRASS IS ESTABLISHED, PERIODICALLY CHECK THE CHANNEL; CHECK IT AFTER EVERY HEAVY RAINFALL EVENT. IMMEDIATELY MAKE REPAIRS. IT IS PARTICULARLY IMPORTANT TO CHECK THE CHANNEL OUTLET FOR BANK STABILITY AND EVIDENCE OF PIPING OR SCOUR HOLES. REMOVE ALL SIGNIFICANT SEDIMENT ACCUMULATIONS TO MAINTAIN THE DESIGNED CARRYING CAPACITY.

CHANNEL	W (ft)	H (ft)	SIDE SLOPE	TEMPORARY LINING
20-1A	2.0	2.5	2:1	NONE
20-1B	6.0	2.5	2:1	NONE
20-2	5.0	4.0	3:1	NONE
20-3	3.0	2.0	3:1	NORTH AMERICAN GREEN SC150BN

DIVERSION CHANNEL



TEMPORARY HIGHWALL BERM

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3A0D005E6BA548B...

3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

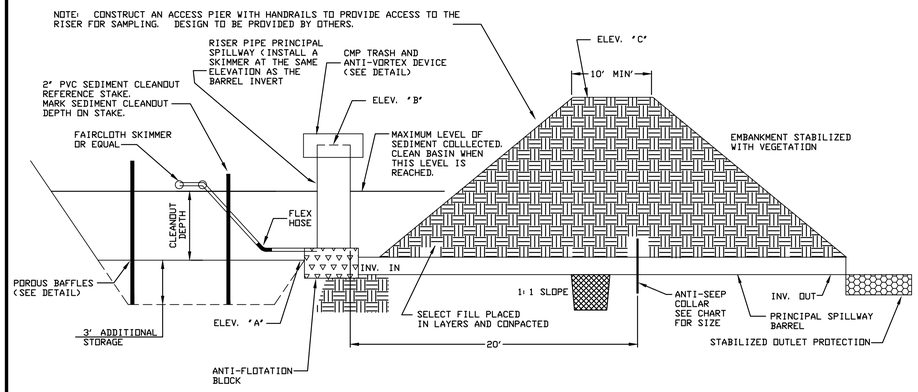
REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE
PLAN:
PROFILE
HORIZ.:
VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

JOB NO. 11526
SHEET NO. 17
OF: 21



THE BASIN MAY ALSO BE DEWATERED BY PERFORATING THE RISER WITH 1/2-INCH HOLES WITH A SPACING OF APPROXIMATELY 3 INCHES IN EACH OUTSIDE VALLEY.

TRASH GUARD - INSTALL A TRASH GUARD ON THE TOP OF THE RISER TO PREVENT TRASH AND OTHER DEBRIS FROM CLOGGING THE CONDUIT.

CONSTRUCTION SPECIFICATIONS

1. SITE PREPARATIONS - CLEAR, GRUB, AND STRIP TOPSOIL FROM AREAS UNDER THE EMBANKMENT TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. TO FACILITATE SEDIMENT CLEANOUT AND RESTORATION, CLEAR THE POOL AREA OF ALL BRUSH, TREES, AND OTHER OBJECTIONABLE MATERIALS. STOCKPILE ALL TOPSOIL OR SOIL CONTAINING ORGANIC MATTER FOR USE ON THE OUTER SHELL OF THE EMBANKMENT TO FACILITATE VEGETATIVE ESTABLISHMENT.

2. CUT-OFF TRENCH - EXCAVATE A CUT-OFF TRENCH ALONG THE CENTERLINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 2 FT DEEP. THE CUT-OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE RISER CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF EXCAVATION AND COMPACTION EQUIPMENT BUT IN NO CASE LESS THAN 2 FT. MAKE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:1. COMPACTION REQUIREMENTS ARE THE SAME AS THOSE FOR THE EMBANKMENT. KEEP THE TRENCH DRY DURING BACKFILLING AND COMPACTION OPERATIONS.

3. EMBANKMENT - THE EMBANKMENT SHOULD BE CLEAN MINERAL SOIL, FREE OF ROOTS, WOODY VEGETATION, ROCKS, AND OTHER OBJECTIONABLE MATERIAL. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING FILL. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 6 TO 8-INCH CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT IT. COMPACTION MAY BE OBTAINED BY ROUTING THE CONSTRUCTION HAULING EQUIPMENT OVER THE FILL SO THAT THE ENTIRE SURFACE OF EACH LAYER IS TRAVERSED BY AT LEAST ONE WHEEL OR TREAD TRACK OF THE HEAVY EQUIPMENT, OR A COMPACTOR MAY BE USED. CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING.

4. CONDUIT SPILLWAYS - SECURELY ATTACH THE RISER TO THE BARREL OR BARREL STUB TO MAKE A WATERTIGHT STRUCTURAL CONNECTION. SECURE ALL CONNECTIONS BETWEEN BARREL SECTIONS BY APPROVED WATERTIGHT ASSEMBLIES. PLACE THE BARREL AND RISER ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE OR ANTI-SEEP COLLARS. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. PLACE A MINIMUM DEPTH OF 2 FT OF HAND-COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. ANCHOR THE RISER IN PLACE BY CONCRETE OR OTHER SATISFACTORY MEANS TO PREVENT FLOTATION. IN NO CASE SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.

5. SKIMMER - SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER. SKIMMER HORIZONTAL MOVEMENT IS TO BE LIMITED BY METAL STAKES OR 2x4's. INSTALL SKIMMER PER MANUFACTURER'S RECOMMENDATIONS. ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURERS INSTRUCTIONS, OR AS DESIGNED. 6. LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN. THIS WILL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.

MAINTENANCE

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.

REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

BASIN NO.	FAIRCLOTH SKIMMER		
	SIZE (IN)	ORIFICE DIA. (IN)	ARM SIZE
RSB 20-1	4.0	3.5	8' x 3.0" dia.
RSB 20-2	2.5	2.5	6' x 1.5" dia.
RSB 20-3	2.5	2.0	6' x 1.5" dia.

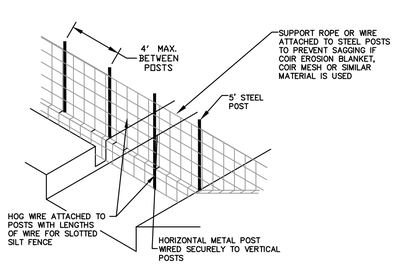
STORAGE AREA									CLEANOUT DEPTH	SEDIMENT STORAGE	SURFACE AREA
	W1	L1	D1	W2	L2	D2	W3	L3	D3	(FT3)	SQ FT
RSB 20-1	100.0	250.0	2.0	108.0	258.0	8.5	VARIES	VARIES	1.2	52,864.0	27,864.0
RSB 20-2	60.0	200.0	1.5	66.0	206.0	5.0	VARIES	VARIES	0.9	19,197.0	13,596.0
RSB 20-3	45.0	200.0	1.5	51.0	206.0	5.5	VARIES	VARIES	0.9	14,629.5	10,506.0

BASIN NO.	RISER DIA. (in)	BARREL DIA. (in)	BARREL LENGTH (ft)	BARREL INV. IN	BARREL INV. OUT	ANTI-FLOTATION BLOCK WIDTH (ft)	ANTI-FLOTATION BLOCK LENGTH (ft)	ANTI-FLOTATION BLOCK DEPTH (ft)	ELEV. "A"	ELEV. "B"	ELEV. "C"
RSB 20-1	72 (CMP)	48 (CMP)	45	726.5	726.0	10.0	10.0	2.50	726.5	732.0	735.0
RSB 20-2	42 (CMP)	30 (CMP)	32	739.5	739.0	6.0	6.0	1.50	740.0	743.0	745.0
RSB 20-3	42 (CMP)	30 (CMP)	33	735.5	735.0	6.0	6.0	1.50	735.5	739.0	741.0

L1 = BASIN LENGTH AT THE BOTTOM OF THE BASIN
W1 = BASIN WIDTH AT THE BOTTOM OF THE BASIN
L2 = BASIN LENGTH AT THE TOP OF THE SEDIMENT STORAGE
W2 = BASIN WIDTH AT TOP OF THE SEDIMENT STORAGE
L3 = BASIN LENGTH AT THE TOP OF THE EMBANKMENT
W3 = BASIN WIDTH AT THE TOP OF THE EMBANKMENT
D1 = THE DEPTH OF SEDIMENT STORAGE
D2 = THE OVERALL DEPTH OF THE SEDIMENT BASIN
D3 = THE CLEANOUT DEPTH OF THE SEDIMENT BASIN
A2 = SURFACE AREA AT THE TOP OF THE SEDIMENT STORAGE

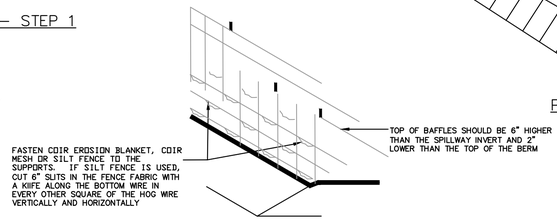
DESIGN NOTES:
1. SEDIMENT STORAGE = 1800 CUBIC FEET PER DISTURBED ACRE
2. REQUIRED SURFACE AREA = 0.01*Q10*43560
3. CLEANOUT DEPTH = 60% OF THE DESIGN STORAGE
4. SEDIMENT VOLUME CALCULATIONS ASSUME 2:1 SLOPES IN THE BASIN
5. DESIGN STORM IS 50 YEAR TO PASS THROUGH RISER/BARREL (NO EMERGENCY SPILLWAY)

RISER PIPE SEDIMENT BASIN

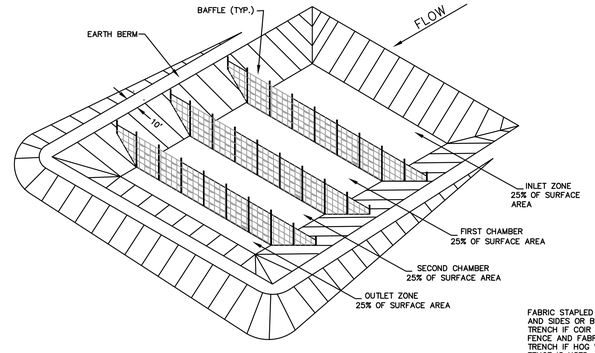


BAFFLE INSTALLATION - STEP 1

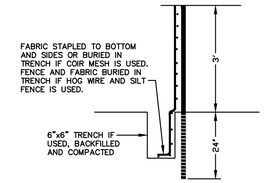
NOTES:
1. DRIVE 5' STEEL POST AT LEAST 24" INTO SOLID GROUND.
2. USE STAPLES 1' APART HORIZONTALLY AND VERTICALLY TO ATTACH THE FABRIC TO THE HOG WIRE.
3. THE FLOOR OF THE BASIN IN THE OUTLET ZONE AND BERMS SHOULD BE SEEDED IMMEDIATELY AFTER THE BASIN IS CONSTRUCTED.



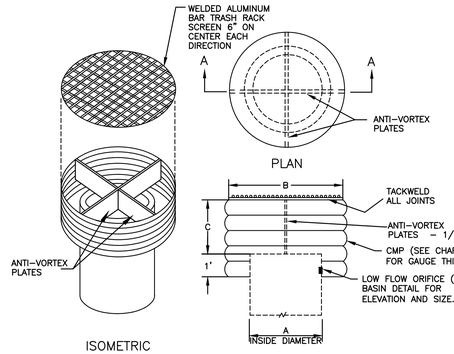
BAFFLE INSTALLATION - STEP 2



PERSPECTIVE VIEW



POROUS BAFFLES



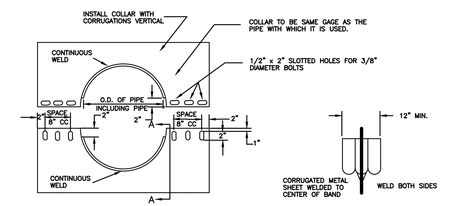
ISOMETRIC

SECTION A-A

A	B	C	GAUGE	MIN. SIZE SUPPORT BAR
72"	102"	36"	14	2" x 2" x 3/8" ANGLE
48"	72"	21"	21	1.25" x 1.25" x .25" ANGLE
42"	60"	19"	19	1.25" x 1.25" x .25" ANGLE

NOTES:
1. COORDINATE THE SIZE OF THE SAMPLING GATE WITH THE OWNER.
2. PROVIDE AN ACCESS WALKWAY WITH HANDRAILS FROM THE TOP OF DAM TO THE TOP OF THE TRASH RACK.
3. MANUFACTURER TO DESIGN AND SUBMIT SHOP DRAWINGS FOR ALL COMPONENTS OF THE ANTI-VORTEX DEVICE.

ANTI - VORTEX DEVICE



ELEVATION OF UNASSEMBLED COLLAR

SECTION A-A

BASIN NO.	LENGTH	WIDTH
RSB 12-3	9.5 FEET	9.5 FEET
RSB 12-4	6.0 FEET	6.0 FEET
RSB 12-5	6.0 FEET	6.0 FEET

NOTES FOR COLLARS:
1. ALL MATERIAL TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHED PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND THE CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER RODS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLARS

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...

3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

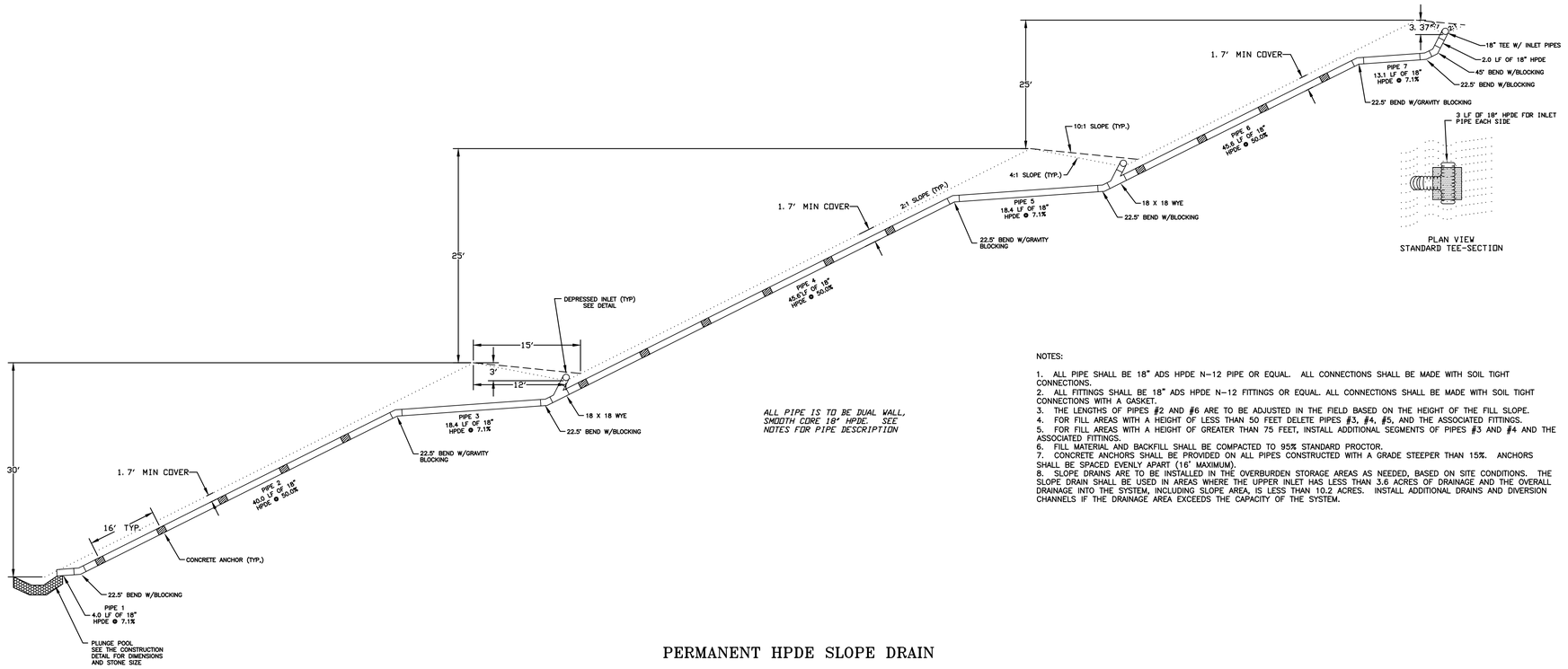
REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE
PLAN:
PROFILE
HORIZ.:
VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

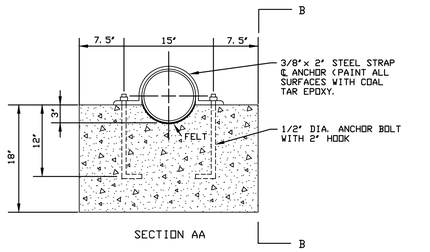
JOB NO. 11526
SHEET NO. 18
OF: 21



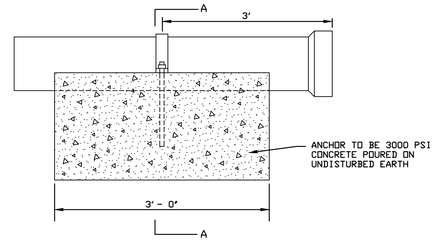
PERMANENT HPDE SLOPE DRAIN

NOTES:

1. ALL PIPE SHALL BE 18" ADS HPDE N-12 PIPE OR EQUAL. ALL CONNECTIONS SHALL BE MADE WITH SOIL TIGHT CONNECTIONS.
2. ALL FITTINGS SHALL BE 18" ADS HPDE N-12 FITTINGS OR EQUAL. ALL CONNECTIONS SHALL BE MADE WITH SOIL TIGHT CONNECTIONS WITH A GASKET.
3. THE LENGTHS OF PIPES #2 AND #6 ARE TO BE ADJUSTED IN THE FIELD BASED ON THE HEIGHT OF THE FILL SLOPE.
4. FOR FILL AREAS WITH A HEIGHT OF LESS THAN 50 FEET DELETE PIPES #3, #4, #5, AND THE ASSOCIATED FITTINGS.
5. FOR FILL AREAS WITH A HEIGHT OF GREATER THAN 75 FEET, INSTALL ADDITIONAL SEGMENTS OF PIPES #3 AND #4 AND THE ASSOCIATED FITTINGS.
6. FILL MATERIAL AND BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
7. CONCRETE ANCHORS SHALL BE PROVIDED ON ALL PIPES CONSTRUCTED WITH A GRADE STEEPER THAN 15%. ANCHORS SHALL BE SPACED EVENLY APART (16' MAXIMUM).
8. SLOPE DRAINS ARE TO BE INSTALLED IN THE OVERBURDEN STORAGE AREAS AS NEEDED, BASED ON SITE CONDITIONS. THE SLOPE DRAIN SHALL BE USED IN AREAS WHERE THE UPPER INLET HAS LESS THAN 3.6 ACRES OF DRAINAGE AND THE OVERALL DRAINAGE INTO THE SYSTEM, INCLUDING SLOPE AREA, IS LESS THAN 10.2 ACRES. INSTALL ADDITIONAL DRAINS AND DIVERSION CHANNELS IF THE DRAINAGE AREA EXCEEDS THE CAPACITY OF THE SYSTEM.

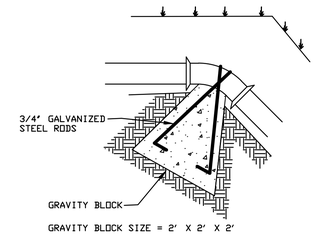


SECTION AA

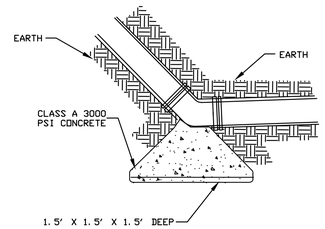


SECTION BB

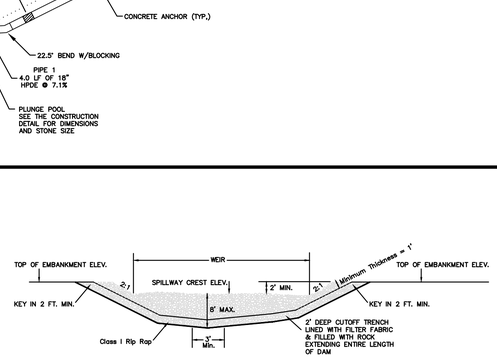
CONCRETE ANCHOR DETAIL



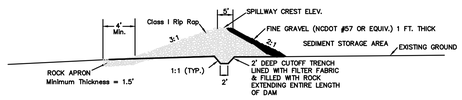
GRAVITY BLOCK SIZE = 2' X 2' X 2'



THRUST BLOCKING



Section Through Embankment at Spillway



Rock Dam

Not To Scale

STORAGE AREA									CLEANOUT DEPTH	SEDIMENT STORAGE	SURFACE AREA
BASIN	W1	L1	D1	W2	L2	D2	W3	L3	D3	(FT3)	A2
RD 20-1	VARIES	VARIES	2. 5	VARIES	VARIES	5. 5	VARIES	VARIES	1. 5	67, 509. 0	29, 042. 0

L1 = BASIN LENGTH AT THE BOTTOM OF THE BASIN
W1 = BASIN WIDTH AT THE BOTTOM OF THE BASIN
L2 = BASIN LENGTH AT THE TOP OF THE SEDIMENT STORAGE
W2 = BASIN WIDTH AT TOP OF THE SEDIMENT STORAGE
L3 = BASIN LENGTH AT THE TOP OF THE EMBANKMENT
W3 = BASIN WIDTH AT THE TOP OF THE EMBANKMENT
D1 = THE DEPTH OF SEDIMENT STORAGE
D2 = THE OVERALL DEPTH OF THE SEDIMENT BASIN
D3 = THE CLEANOUT DEPTH OF THE SEDIMENT BASIN
A2 = SURFACE AREA AT THE TOP OF THE SEDIMENT STORAGE

SPILLWAY DIMENSIONS		
BASIN	MIN WEIR LENGTH FT	DEPTH FT
RD 12-5	40. 0	3. 0

NOTE THE SPILLWAY LENGTH SHOULD BE INSTALLED WITH A WIDTH AS LARGE AS POSSIBLE.

ROCK DAM	ELEVATION	SURFACE AREA (SF)	VOLUME (FT3)	STORAGE VOLUME (FT3)	NOTES
RD 20-1	713. 50	24, 624	0. 00	0. 00	BASIN FLOOR
	714. 00	25, 849	12, 618	12, 618	
	716. 00	29, 042	54, 891	67, 509	TOP OF SEDIMENT STORAGE / SPILLWAY ELEVATION
	718. 00				TOP OF ROCK DAM

Construction Specifications

1. Clear the areas under the embankment and strip of roots another objectionable material. Delay clearing the reservoir area until the dam is in place.
2. Cover the foundation area including the abutments with extra-strength filter fabric before backfilling with rock. If a cutoff trench is required, excavate at center line of dam, extending all the way up the earth abutments. Apply filter fabric under the rock fill embankment, from the upstream edge of the dam to the downstream edge of the apron, Overlap fill material a minimum of 1 foot at all joints, with the upstream strip laid over the downstream strip.
3. Construct the embankment with well-graded rock and gravel to the size and dimensions shown on the drawings. It is important that rock abutments be at least 2 feet higher than the spillway crest and at least 1 foot higher than the dam, all the way to the downstream toe, to prevent scour and erosion at the abutments.
4. Sediment-laden water from the construction site should be diverted into the basin reservoir at the furthest area from the dam.
5. Construct the rock dam before the basin area is cleared to minimize sediment yield from construction of the basin. Stabilize immediately all areas disturbed during the construction of the dam except the sediment pool (References: Surface Stabilization).
6. Safety – Sediment basins should be considered dangerous because they attract children. Steep side slopes should be avoided. Fences with warning signs may be needed if trespassing is likely. All state and local requirements must be followed.

Maintenance

Check sediment basins after each rainfall. Remove sediment and restore original volume when sediment accumulates to about one-half the design volume.

Check the structure for erosion, piping, and rock replacement after each significant rainstorm and repair immediately.

Remove the structure and any unstable sediment immediately after the construction site has been permanently stabilized. Smooth the basin site to blend with the surrounding area and stabilize. All water and sediment should be removed from the basin prior to dam removal. Sediment should be placed in designated disposal areas and not allowed to flow into streams or drainage ways during structure removal.

Profile Along Embankment at Spillway

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...

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JOB NO. 11526
SHEET NO. 19
OF: 21

GENERAL NOTES

USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.

USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A1064 WELDED WIRE FABRIC (WWF).

FABRICATE, ASSEMBLE AND DESIGN PRECAST MANHOLE COMPONENTS ACCORDANCE WITH AASHTO M199.

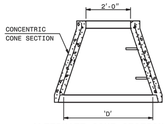
ASSEMBLE RISER AND GRADE RINGS WITH THE STEPS SPACED 12" FROM THE TOP TO THE BOTTOM OF THE MANHOLE.

WHERE THE MANHOLE IS EXPOSED TO ROAD TRAFFIC, CONSTRUCT THE TOP OF THE MANHOLE FLUSH WITH THE GROUND AND A MINIMUM OF 9" ABOVE THE GROUND AT OTHER LOCATIONS.

LIMIT DEPTH OF FILL TO 30'-0" FROM FINISH GRADE TO TOP OF BOTTOM SLAB.

THE MIN. SLAB THICKNESS 'T' IS THE DIMENSION OF THE THINNEST PORTION OF THE TOP/BOTTOM SLAB.

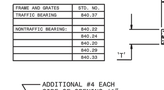
* TOP MAT OF REINFORCEMENT MAY BE NEGLECTED IF TOP SLAB HAS A DISTINGUISHABLE TOP AND BOTTOM.



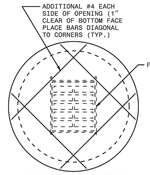
ALTERNATE CONE SECTION

D	W	T	As
INTERNAL DIAMETER (FT.)	MIN. WALL THICKNESS (IN.)	MIN. TOP/BOTTOM SLAB THICKNESS (IN.)	MIN. CIRCUMFERENTIAL AREA OF STEEL PER VERTICAL FT. (SQ. IN.)
4	4	6	0.12
5	5	8	0.15
6	6	8	0.18

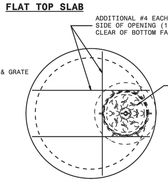
FRAME AND GRATES	STD. NO.
TRAFFIC BEARING:	840.37
NONTRAFFIC BEARING:	840.22
	840.24
	840.25
	840.28
	840.33



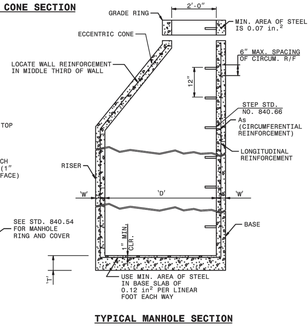
FLAT TOP SLAB



GRATED INLET OPTION



MANHOLE OPTION



TYPICAL MANHOLE SECTION

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

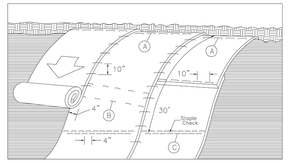
PRECAST MANHOLE 4', 5' AND 6' DIAMETER
12" THRU 48" PIPE

SHEET 1 OF 1

840.52



MATTING IN DITCHES



MATTING ON SLOPES

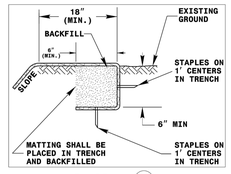


DIAGRAM (A)

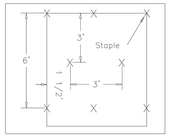


DIAGRAM (B)

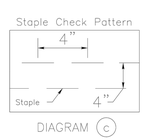


DIAGRAM (C)

NOTES

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

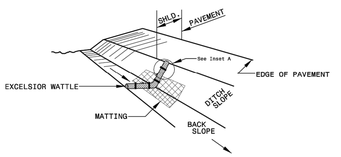
MATTING INSTALLATION

SHEET 1 OF 1

1631.01

WATTLE DETAIL

PROJECT REFERENCE NO.	SHEET NO.
F-XXXX	EC-XX
RW. SHEET NO.	
ROADWAY DESIGN ENGINEER	STORMWATER ENGINEER



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

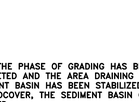
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

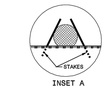
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

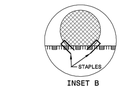
CROSS SECTION
VEE DITCH



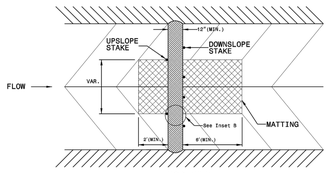
CROSS SECTION
TRAPEZOIDAL DITCH



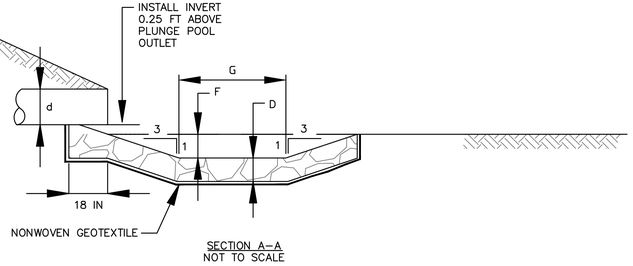
INSET A



INSET B



TOP VIEW



SECTION A–A
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. USE SPECIFIED CLASS OF RIPRAP.

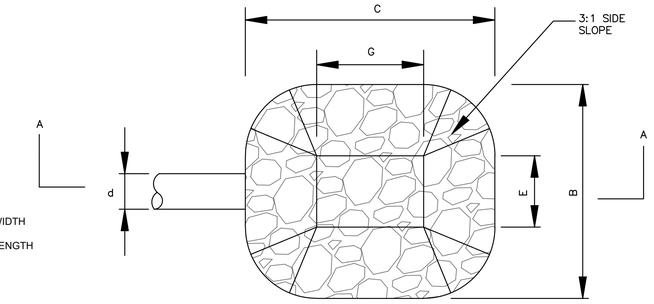
2. USE NONWOVEN GEOTEXTILE AND PROTECT FROM PUNCHING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE.

3. PREPARE THE SUBGRADE FOR THE PLUNGE POOL TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

4. STONE FOR THE PLUNGE POOL MAY BE PLACED BY EQUIPMENT. CONSTRUCT TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. DELIVER AND PLACE THE STONE FOR THE PLUNGE POOL IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE STONE FOR THE PLUNGE POOL IN A MANNER TO PREVENT DAMAGE TO THE GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.

5. AT THE PLUNGE POOL OUTLET, PLACE THE STONE SO THAT IT MEETS THE EXISTING GRADE.

6. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.



PLAN VIEW
NOT TO SCALE

LABEL	VALUE	
B	7.1 FEET	POOL WIDTH TOP
C	7.4 FEET	POOL LENGTH TOP
d	18 INCHES	SLOPE DRAIN SIZE
D50	4" (CLASS A)	STONE SIZE
D	10 INCHES	RIPRAP THICKNESS
E	0.8 FEET	BOTTOM OF POOL WIDTH
F	1.0 FEET	POOL DEPTH
G	0.9 FEET	BOTTOM OF POOL LENGTH

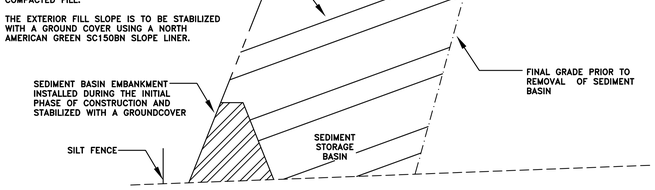
PLUNGE POOL

ONCE THE PHASE OF GRADING HAS BEEN COMPLETED AND THE AREA DRAINING TO THE SEDIMENT BASIN HAS BEEN STABILIZED WITH A GROUNDCOVER, THE SEDIMENT BASIN CAN BE REMOVED.

REMOVE THE RISER AND BARREL BY REMOVING THE STRUCTURE OR ABANDON THE SYSTEM IN PLACE BY FILLING WITH GROUT.

FILL IN SEDIMENT BASIN STORAGE AREA AND THE AREA ABOVE THE SEDIMENT BASIN WITH COMPACTED FILL.

THE EXTERIOR FILL SLOPE IS TO BE STABILIZED WITH A GROUND COVER USING A NORTH AMERICAN GREEN SC150BN SLOPE LINER.



SEDIMENT BASIN REMOVAL
NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3AD005E6BA648B...

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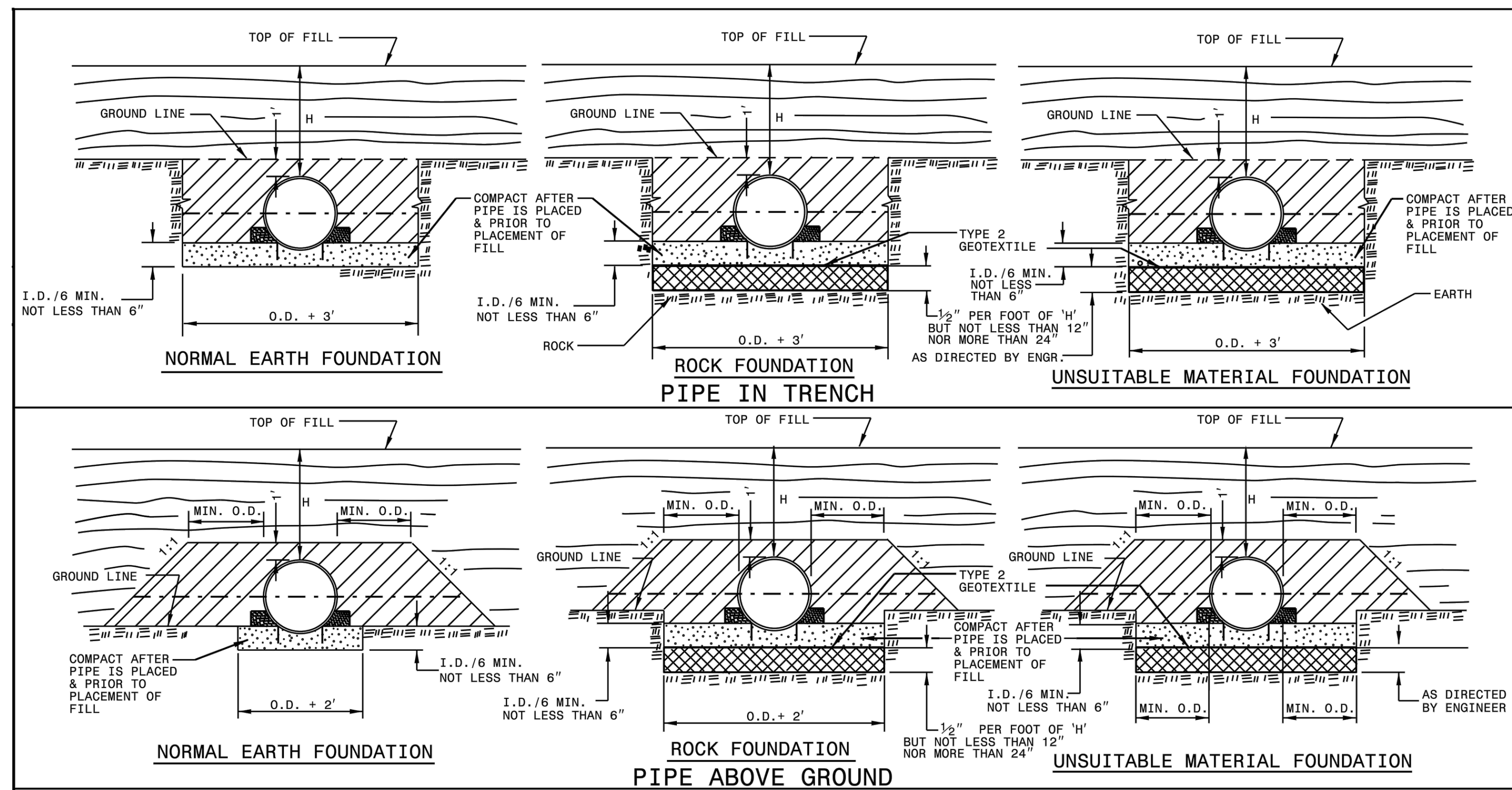
OF: 21



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

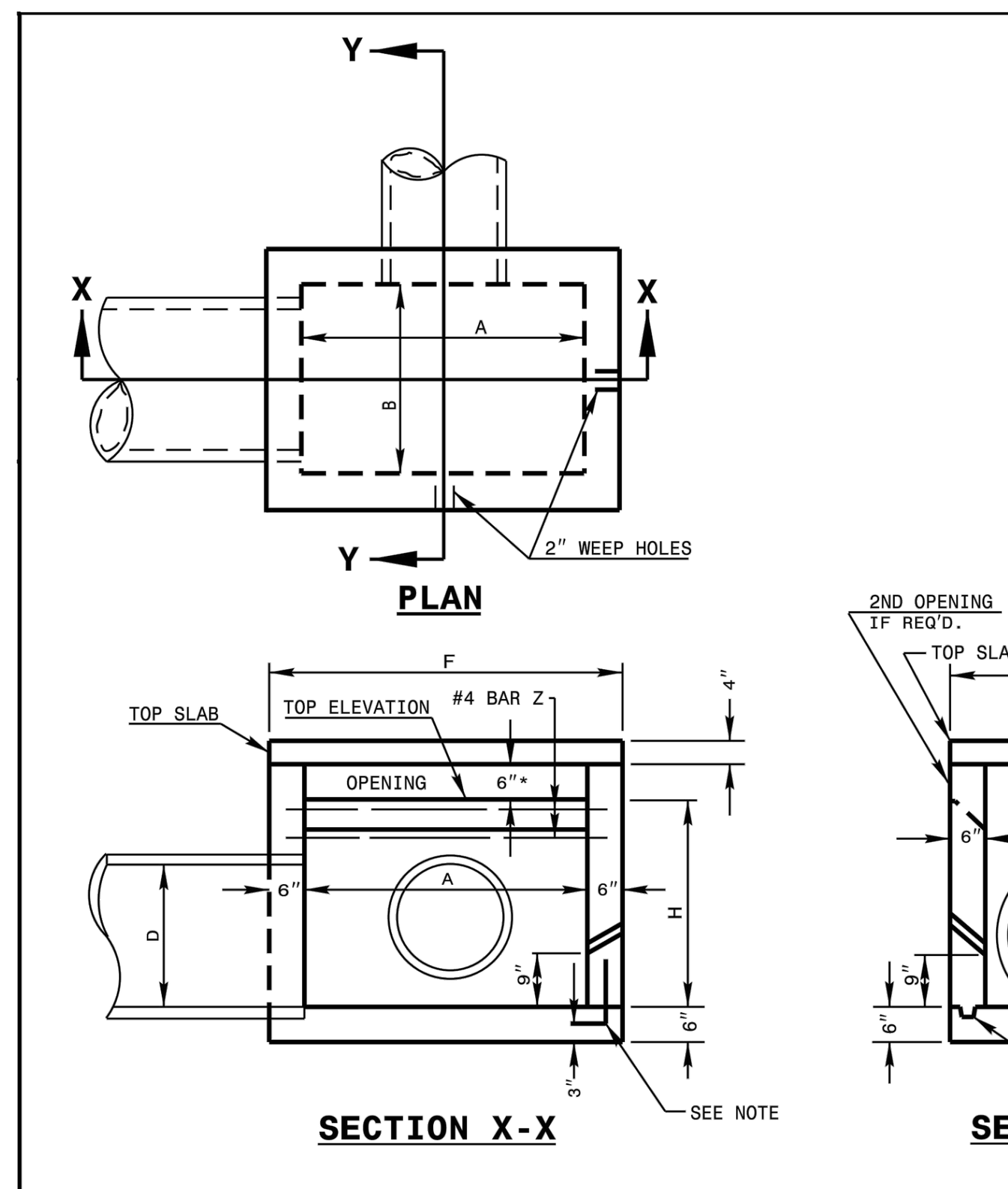
SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE
SHEET 1 OF 3
300.01



NOTES: USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

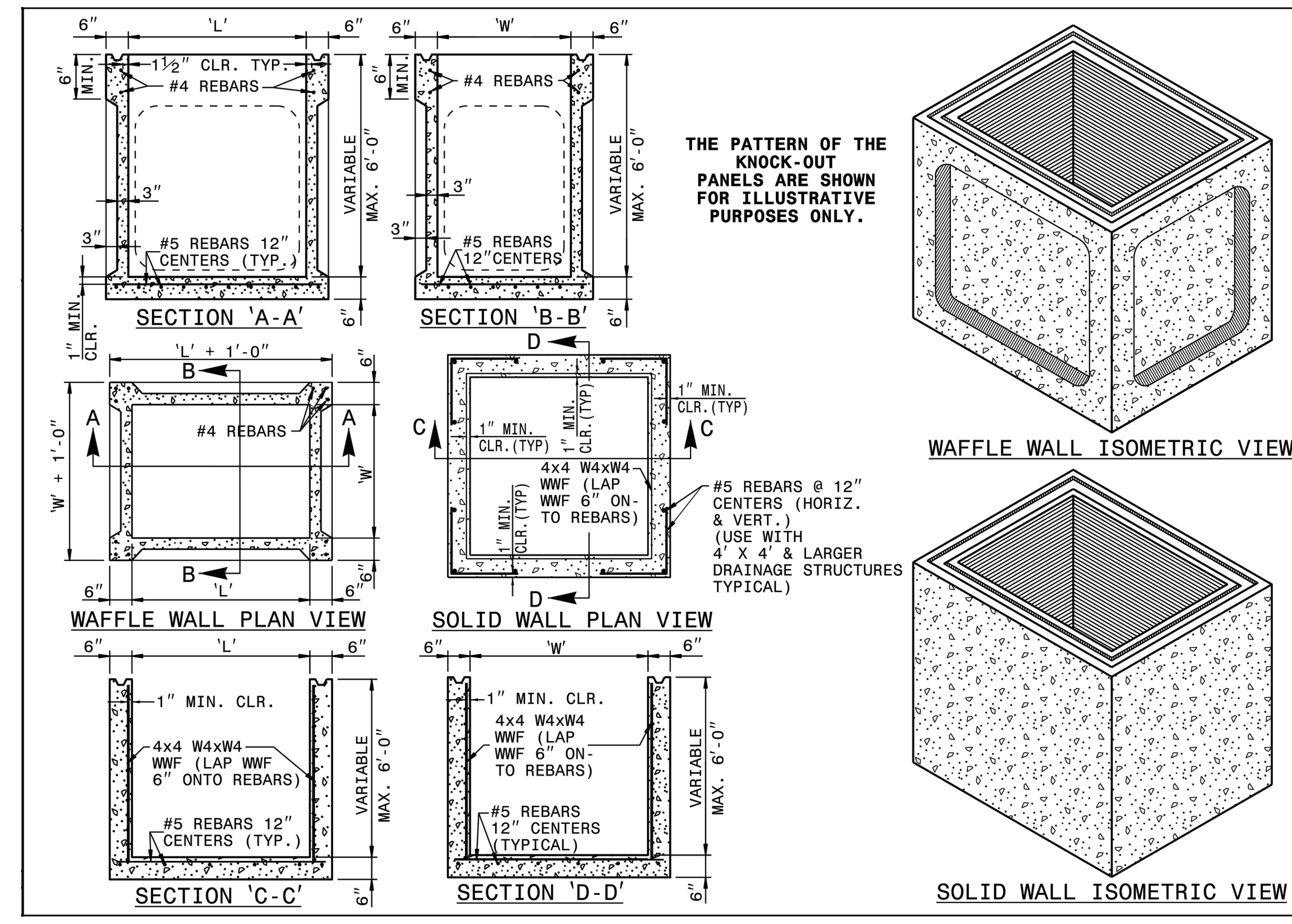
DRAWING NOT TO SCALE.

* INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HIEGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.

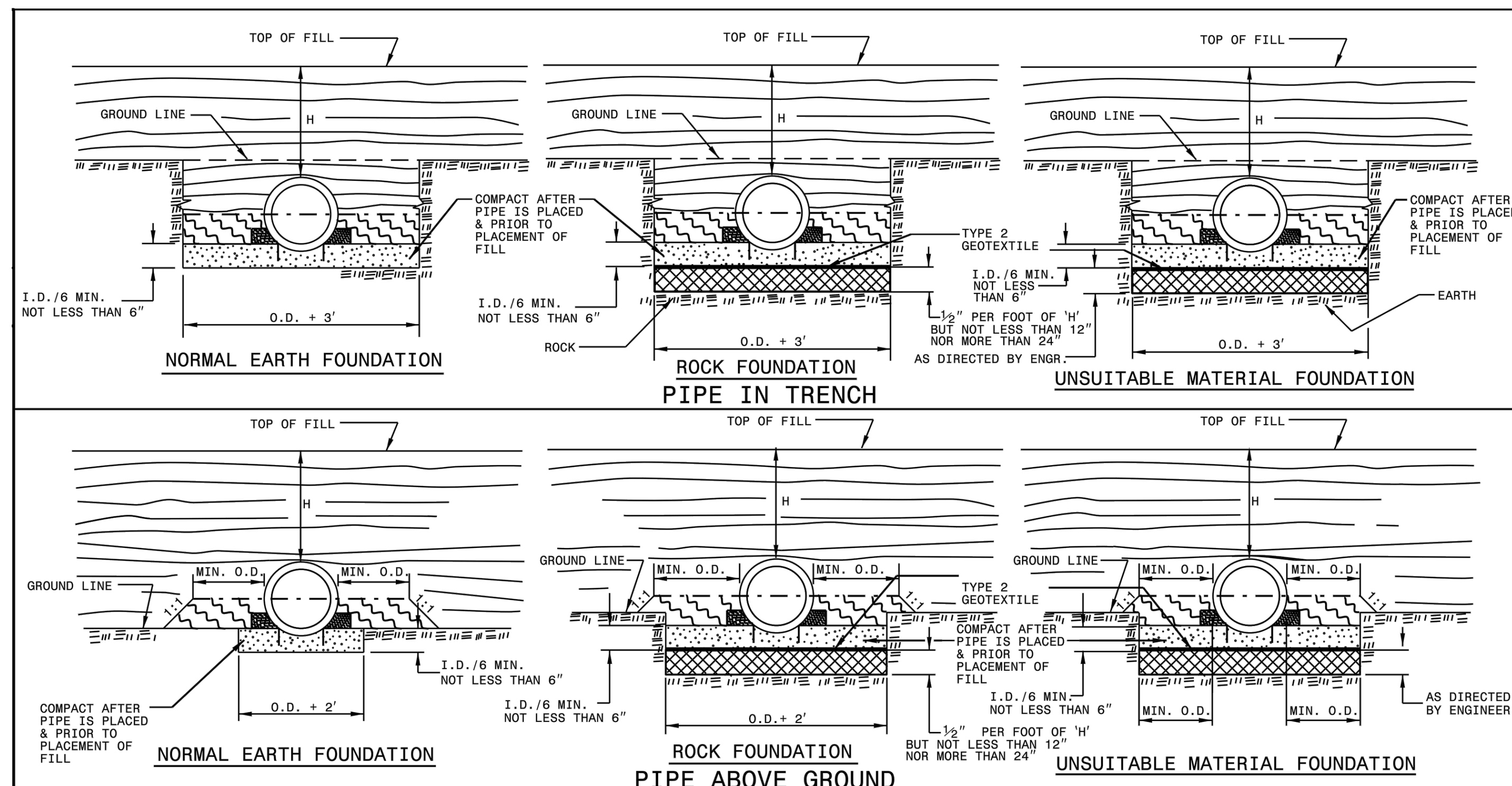
MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

DIM'S OF BOX & PIPE				REINFORCING						TOP & BOT. SLAB DIMENSIONS		CU. YDS. CONC. IN BOX			TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		DED. ONE 6" THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS - X		BARS - Y		BARS - Z											
D	A	B	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB	BOT. SLAB	WALL/FT. HT.	LBS. REINF.	YD³ (MIN H)	C.S.	R.C.	YD³
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.046	0.015	0.032	0.046
15"	3'-6"	2'-3"	2'-1"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.379	0.033	0.049	0.053
24"	4'-0"	2'-8"	2'-10"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.521	0.059	0.085	0.053
30"	4'-0"	3'-6"	3'-4"	5	4'-3"	9	4'-9"	2	4'-9"	5'-0"	4'-6"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	2	5'-3"	5'-6"	5'-0"	0.340	0.510	0.352	51	2.390	0.132	0.178	0.059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	5'-9"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
12" THRU 48" PIPE
SHEET 1 OF 2
840.04



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(SOLID AND WAFFLE WALL)
SHEET 1 OF 2
840.45



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

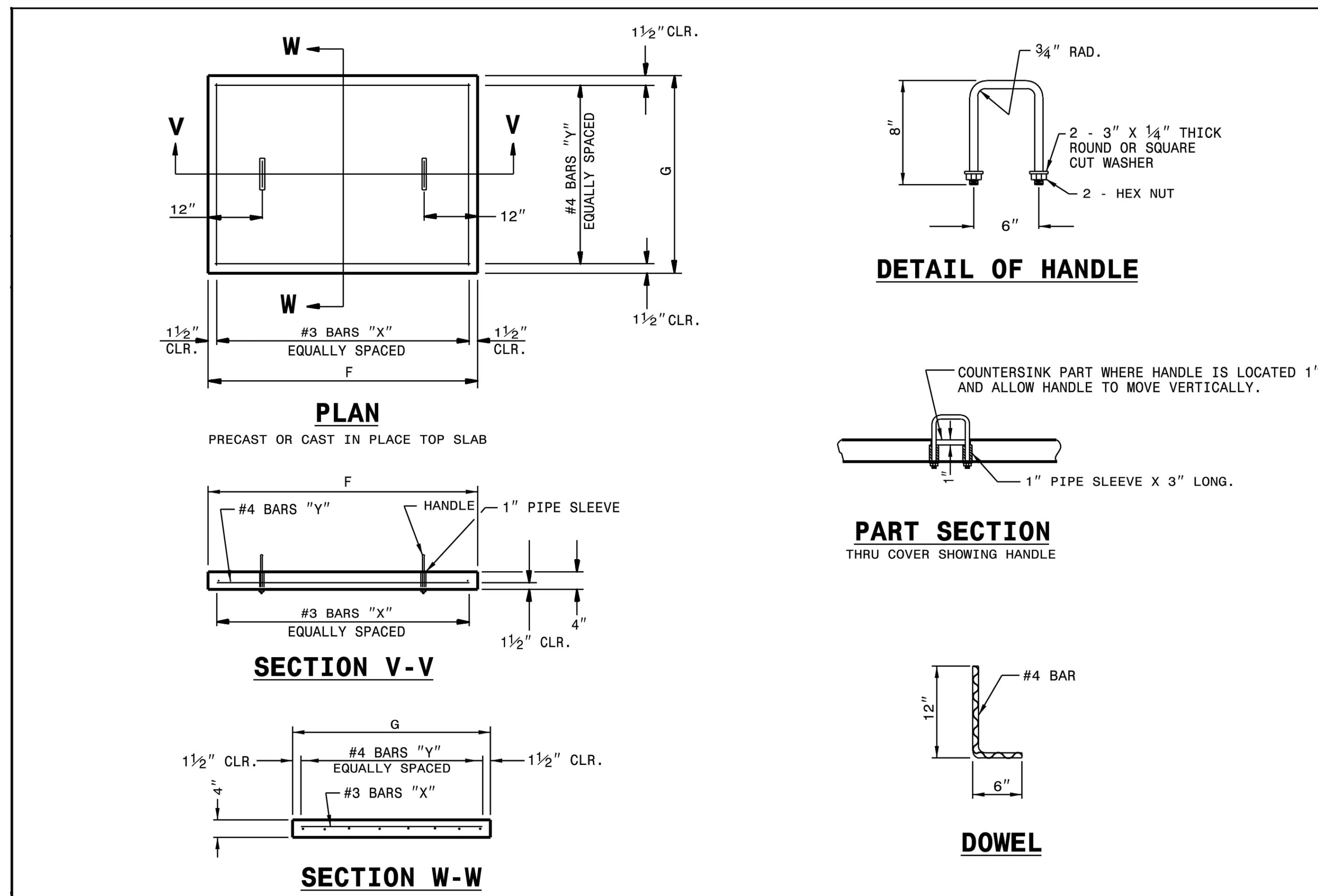
SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

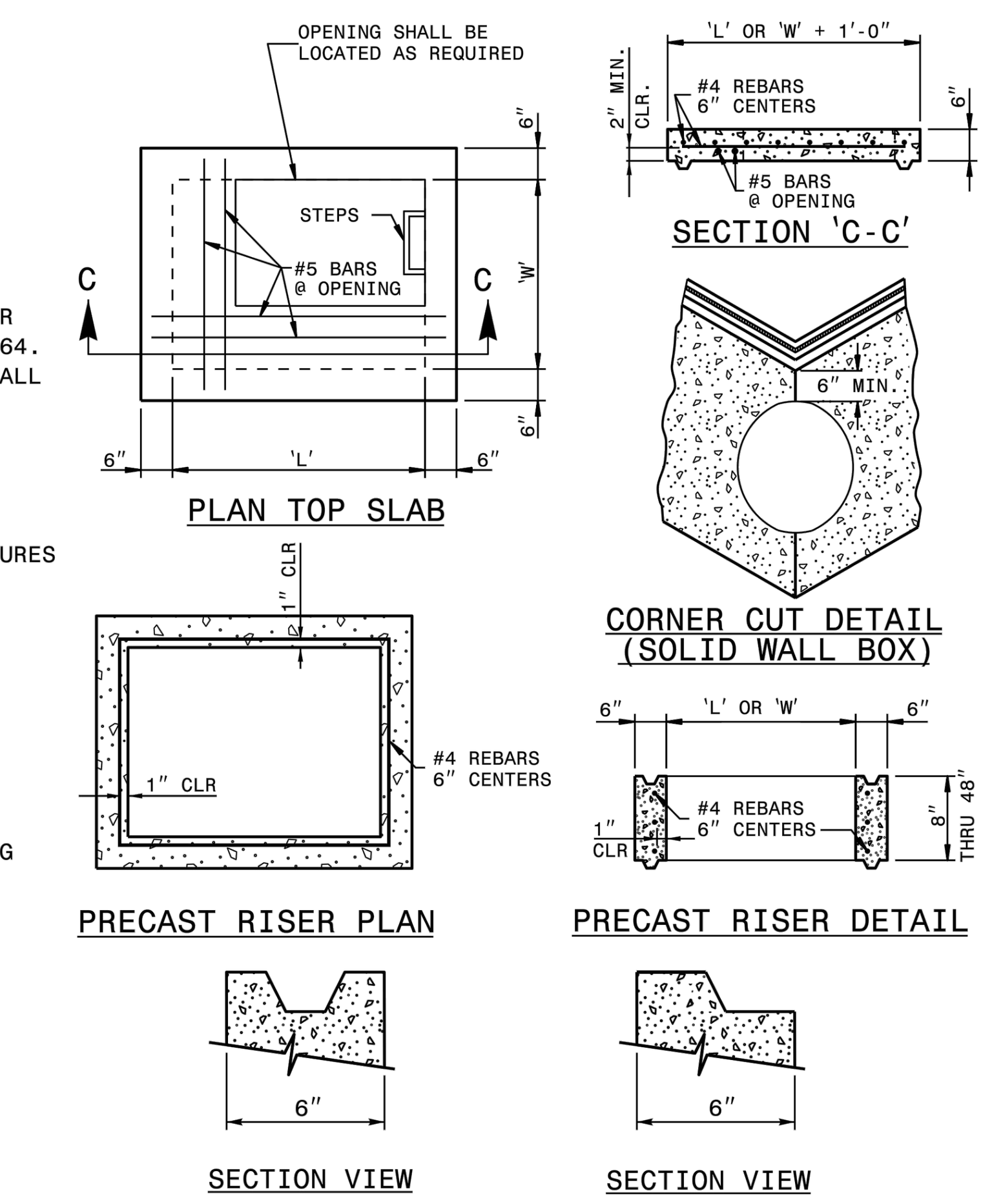
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE
SHEET 2 OF 3
300.01



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
12" THRU 48" PIPE
SHEET 2 OF 2
840.04

GENERAL NOTES:

* THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.01, 840.02, 840.04, 840.05, 840.13, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.31, 840.32 AND 840.41.
* INSTALL PRECAST DRAINAGE STRUCTURES AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 840.
* DO NOT PLACE PRECAST DRAINAGE STRUCTURES UNDER TRAFFIC OR WHERE TRAFFIC WILL BE DETOURED.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A1064.
* LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB FOR WAFFLE WALL STRUCTURE TO 10'-0"; LIMIT SOLID WALL STRUCTURE TO 15'-0".
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* CUT OR FORM OPENINGS FOR PIPE TO PROVIDE REQUIRED SIZE AND LOCATION. ORIENT WAFFLE WALL STRUCTURES SO THAT PIPES ENTER THROUGH THE KNOCKOUT/WAFFLE PANELS ONLY. PIPES MAY ENTER THROUGH THE CORNERS OF SOLID WALL BOXES IF A MINIMUM OF 6" OF WALL IS PROVIDED ABOVE THE HOLE.
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
* PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS AS DIRECTED BY THE ENGINEER.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* SEAL JOINTS WITH A FLEXIBLE BUTYL RUBBER BASE CONFORMING TO FEDERAL SPECIFICATION SS-S-21A, AASHTO M-198, TYPE B - BUTYL RUBBER.
* LIMIT MAXIMUM STRUCTURE SIZE TO INSIDE CLEAR DIMENSIONS OF 5'-0" X 5'-0".
* THE OUTSIDE PIPE DIAMETER PLUS 2" OR THE OPENING REQUIRED FOR FRAME AND GRATE IS THE MINIMUM STRUCTURE SIZE WHICHEVER IS GREATER.
* USE MANHOLE FRAME AND COVER AS INDICATED ON THE PLANS. REINFORCE OPENING AS SHOWN ON THIS SHEET.



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(GENERAL NOTES AND DETAILS)
SHEET 2 OF 2
840.45

FLEXIBLE PIPE

Round Corrugated Steel Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet) (Ga) 16	14	12	10	8
12	12	204	256			
15	12	162	204			
18	12	135	169	239		
21	12	115	145	204		
24	12	100	126	178		
30	12	79	100	142		
36	12	65	83	117	152	
42	12	55	70	100	130	160
48	12	48	61	87	113	139
54	12		54	77	100	123
60	12			69	90	111
66	12				81	100
72	12				74	91
78	12					81
84	12					69

Round Corrugated Aluminum Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet) (Ga) 16	14	12	10	8
12	12	123	155	218	281	344
15	12	98	123	174	224	275
18	12	81	102	144	187	228
21	12	69	87	123	160	195
24	12	60	76	108	139	171
27	12		67	95	123	151
30	12		60	85	111	136
36	12		50	71	92	113
42	12			60	78	96
48	12			52	68	84
54	12			46	50	74
60	12				50	62
66	12					51
72	12					41

** FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.

HDPE - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
* (Maximum fill) 20' for pipe diameters ≤ 24"
17' for pipe diameters ≥ 30" and ≤ 60"

PVC - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
* (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

CSP - AASHTO M36
CAAP - AASHTO M196
HDPE - AASHTO M294
PVC - ASTM F949 or AASHTO M304

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

RIGID PIPE

RCP - * (Minimum fill) 1' for Class IV & CLASS V
2' for Class III & Class II

* (Maximum fill) 10' - Class II pipe
20' - Class III pipe
30' - Class IV pipe
40' - Class V pipe

(For fills > 40' & < 80' use LRFD Direct Design Method)

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

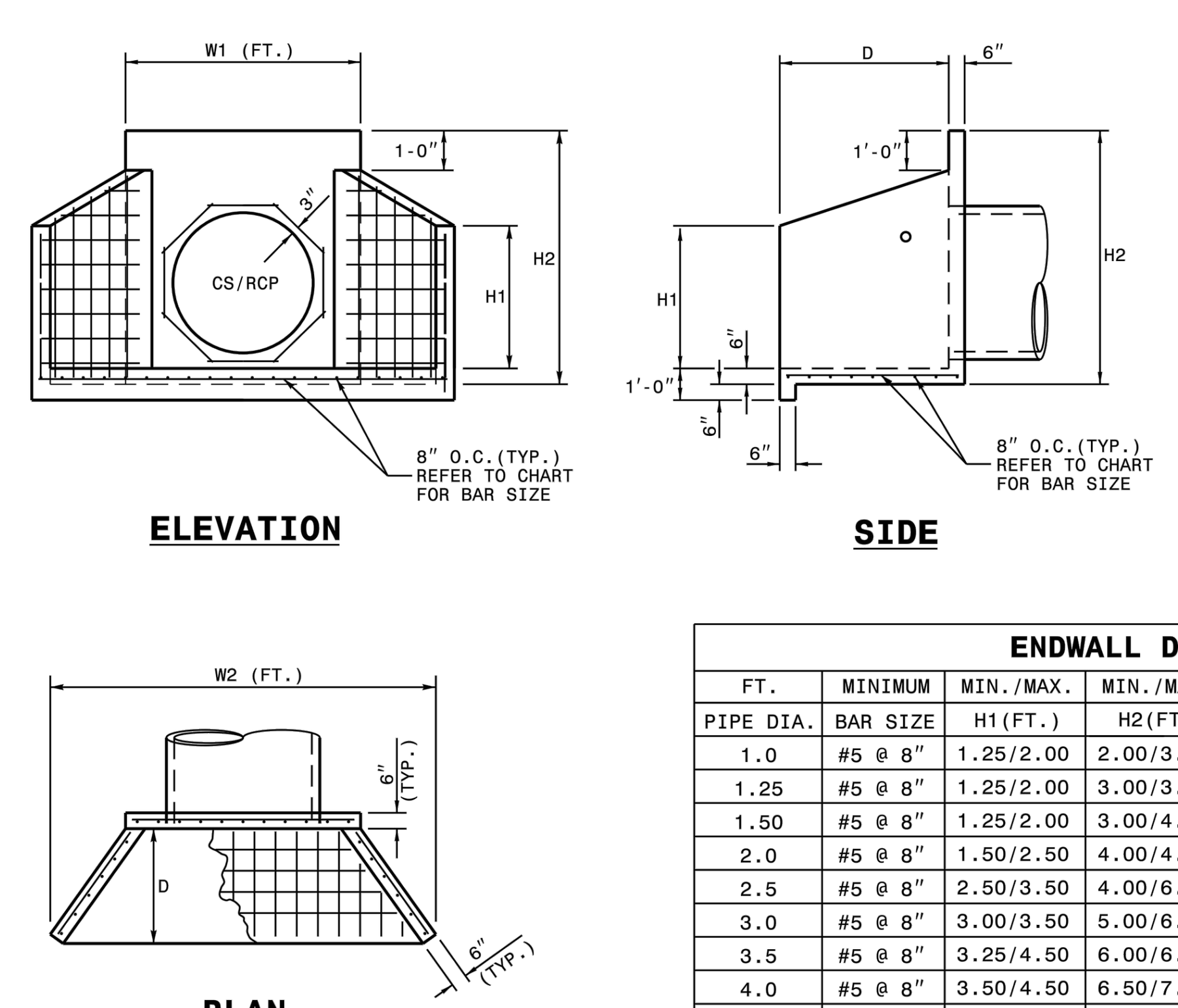
REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

RCP - AASHTO M170

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION
FILL HEIGHT TABLES
SHEET 3 OF 3
300.01



NOTES:

* THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
* INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185 WITH 2" MIN. CLEARANCE.
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* PIPE TO BE GROUTED INTO HEADWALL AT JOB SITE BY CONTRACTOR
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* CHAMFER ALL CORNERS 1" OR HAVE A RADIUS OF 1".

NOTE: THE MINIMUM BAR SIZE SHALL BE #5 BARS AT 8" CTS.THE CONTRACTOR WILL HAVE THE OPTION TO INCREASE THIS BAR SIZE AS NEEDED.

ENDWALL DIMENSIONS

FT. PIPE DIA.	MINIMUM BAR SIZE	MIN./MAX. H1(FT.)	MIN./MAX. H2(FT.)	MIN./MAX. D (FT.)	MIN./MAX. W1	MIN./MAX. W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 @ 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.50	10.00/11.50
3.0	#5 @ 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 @ 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 @ 8"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 @ 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 @ 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
6.0	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.75/9.25	14.75/16.75

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-18
ROADWAY STANDARD DRAWING FOR
PRECAST CONCRETE ENDWALL
FOR SINGLE 12" THRU 72" PIPE - 90° SKEW
SHEET 1 OF 1
838.80

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb
3A0D005E6BA648B...
3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE — PLAN: PROFILE — HORIZ.: VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

JOB NO. 11526
SHEET NO. 21
OF: 21

SITE DEVELOPMENT NOTES

1. General Provisions

a. These Site Development Notes form a part of the Conditional Plan associated with the Conditional Use rezoning application filed by Vulcan Materials Company ("Applicant") to accommodate the development of approximately 138.388 Acres of real property located off Gold Hill Road East, in Gold Hill (Cabarrus County), North Carolina for Extraction of Earth Products ("Quarry") use, said real property being further identified as Cabarrus County PIN # 6603-26-2969 (the "Site").

b. Applicant proposes the rezoning of the Site from O/I (Office/Institutional) to GI-CU (General Industrial-Conditional Use). These Site Development Notes, the Site Plan (consisting of Sheets 1-21), Applicant's rezoning application and any additions or revisions thereof, are collectively referred to as the "Rezoning Plan" or "Conditional Plan." Development of the Site will be governed by the Rezoning Plan as well as applicable provisions of the Cabarrus County Development Ordinance ("Ordinance").

c. Alterations to the Conditional Plan are subject to Chapter 13 of the Ordinance.

2. Permitted Uses:

a. Use of that portion or portions of the Site identified as Phase 1, Phase 2, Phase 3 and Phase 4 on the Site Plan (individually, a "Phase"; collectively, the "Phased Area") shall be limited to construction of, and use as, material storage area(s) for storage of processed materials and by products from the excavation processes of the adjacent quarry ("Overburden Storage" or "Quarry use").

b. Use of the Site for extraction (pits) or mining operations other than Overburden Storage is prohibited.

c. Approximately 25 acres of the Site, located to the North of Phase 4 and identified as Area 5 on the Site Plan, shall not be used for Overburden Storage, but shall remain generally in its natural condition to provide additional buffering and screening of the existing quarry operations located to the east of the Site.

d. Subject to the phasing requirement for the Phased Area in Section 5(k) herein, Applicant reserves the right to timber those portions of the Site located outside of the 100 foot wide perimeter landscape buffer yard as shown on the Site Plan.

3. Transportation

a. All access to and from the Site for Quarry use shall be through the adjacent quarry via an existing driveway connection to SR 1221 (Old Beatty Ford Road) in Rowan County as shown on the Site Plan.

b. The Site also has access via an existing driveway connection on SR 2450 (Gold Hill Road East) as shown on the Site Plan. Access via the Gold Hill E. connection shall be limited to pond maintenance and emergency access.

c. Should the Gold Hill E. access need to be used for commercial use, a driveway permit from NCDOT will be required.

d. Access to and from the Site for timbering of the Phased Area shall be through the adjacent quarry.

4. Buffer and Landscaping:

a. Applicant shall provide a 30 foot building setback around the perimeter of the Site as shown on the Site Plan. Applicant shall provide a 75 foot building setback from Gold Hill Road E. as shown on the Site Plan. Required setbacks are located within the applicable buffer yards as shown on the Site Plan. No buildings are proposed for the Site.

b. Applicant shall provide and maintain a 100 foot wide perimeter landscape buffer yard between the Site and adjacent non-quarry parcels and Gold Hill E. right of way as generally shown on the Site Plan (the “Perimeter Buffer”).

c. The Perimeter Buffer shall consist of existing vegetation, said existing vegetation intended to meet or exceed applicable Ordinance requirements for visual screening and separation of uses.

d. Applicant has identified 3 sections of the Perimeter Buffer where Applicant intends to provide additional plantings. These sections are identified as sections A, B and C on sheet 15 of the Site Plan.

e. Quarry use of the Site shall be phased as shown on the Site Plan. The portion of the Perimeter Buffer located within a particular Phase or area identified on the Site Plan will be completed prior to commencement of any Quarry use within the Phase or area.

f. Prior to commencement of any Quarry use within a Phase of the Site, Applicant and Planning Department will evaluate the existing vegetation within the Perimeter Buffer for said Phase. If all or portions of the existing vegetation have died, or otherwise been damaged, a supplemental plantings plan will be developed and submitted for approval to the Planning Department.

g. In those locations identified as A, B and C on sheet 15 of the Site Plan, Applicant will supplement the existing vegetation as described in the corresponding insets shown on sheet 16 of the Site Plan, or as otherwise agreed by Applicant and Planning staff to provide visual screening and separation of uses.

h. No perimeter landscape buffer shall be required between the Site and adjacent, existing quarry or industrial parcels.

i. An existing approximately 20 foot (20') wide access (haul) road encroaches into portions of the perimeter landscape buffer as generally shown on the Site Plan. Upon completion of any timbering activities, Applicant shall stabilize the access road with low maintenance ground cover as described on sheet 15 of the Site Plan.

j. Should the land use relationship between the Site and one or more abutting properties change such that a lesser buffer, or no buffer, would be required, Applicant reserves the right to reduce or eliminate the aforementioned buffer in accordance with Ordinance requirements and the limits of the development envelope may be expanded to include the former buffer area(s).

k. Where applicable, Applicant reserves the right to use existing vegetation to meet any buffer and screening requirements.

l. Applicant agrees to plant a row of Leyland Cypresses on the toe of slope along the perimeter of Phase 3 as shown on the Site Plan.

m. Initial activity for each Phase will be the construction and vegetation of exterior slopes along the non-quarry perimeter of said Phase.

5. Other Conditions:

a. There are currently no existing structures located on the Site.

b. Storage of processed materials and by products shall not be created to a height of more than forty (40) feet, and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

c. There is no existing or proposed sewage disposal, solid waste, or potable water facilities on the Site.

d. The Site has a NCDEQ mining permit (permit #13-04) and is exempt from the Sedimentation Pollution Control Act of 1973 and any requirements for sediment and erosion control plan approval.

e. The Site has a NCDEQ/ NPDES industrial stormwater permit (NCGO 20000) for stormwater and pit discharges from this Site. Development of this Site is not expected to create any post construction impervious areas that will flow away from the pit. Due to the proposed reclamation without future impervious areas, development of this Site does not require a Phase II stormwater permit.

f. All permanent roads, defined as those to be used in excess of one year, and located within three hundred (300) feet of existing residentially zoned land shall be surfaced with a dust free material such as soil cement, bituminous concrete, or portland cement concrete.

g. Roads other than permanent roads shall be treated with dust inhibitors, as specified in the Operations Plan, to reduce and minimize dust generation from road surfaces from either wind or vehicular action. Properly operated water wagons and sprayer irrigation shall be an acceptable method of dust inhibition.

h. Applicant is required by NCDEQ to maintain a reclamation bond for this Site as a condition of its mine permit. Prior to commencement of any mining operations on the Site and the release of any zoning permit(s), Applicant's engineer shall certify to the county the costs of reclamation on a per acre basis. If the reclamation costs exceed the amounts required by the state, then Applicant shall post a bond payable to Cabarrus County for the difference.

i. The site falls on two maps. FEMA FIRM MAPS 3710660400J and 3710660200J, dated 11-5-2008. The subject property does not lie within a FEMA mapped floodplain or floodway.

j. Applicant will outfit mobile equipment operating on the Site with white noise back-up alarms to help control sound to the extent that their use is permitted by the Mine Safety and Health Administration.

k. Timbering of the Site will be phased to coincide with the use of a particular Phase for Quarry use. For avoidance of doubt, the aforementioned phased timbering requirement is not applicable to Area 5 as shown on the Site Plan.

6. BINDING EFFECT OF THE REZONING:

If this Rezoning Plan is approved, all conditions applicable to development of the Site imposed under the Rezoning Plan, and these Site Development Notes will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of the Applicant and subsequent owners of the Site and their respective successors in interest, heirs and assigns. The term “Applicant” shall mean Vulcan Materials Company, its successors in interest, and assigns.

SITE DEVELOPMENT NOTES

1. General Provisions

a. These Site Development Notes form a part of the Conditional Plan associated with the Conditional Use rezoning application filed by Vulcan Materials Company ("Applicant") to accommodate the development of approximately 138.388 Acres of real property located off Gold Hill Road East, in Gold Hill (Cabarrus County), North Carolina for Extraction of Earth Products ("Quarry") use, said real property being further identified as Cabarrus County PIN # 6603-26-2969 (the "Site").

b. Applicant proposes the rezoning of the Site from O/I (Office/Institutional) to GI-CU (General Industrial-Conditional Use). These Site Development Notes, the Site Plan (consisting of Sheets 1-21), Applicant's rezoning application and any additions or revisions thereof, are collectively referred to as the "Rezoning Plan" or "Conditional Plan." Development of the Site will be governed by the Rezoning Plan as well as applicable provisions of the Cabarrus County Development Ordinance ("Ordinance").

c. Alterations to the Conditional Plan are subject to Chapter 13 of the Ordinance.

2. Permitted Uses:

a. Use of that portion or portions of the Site identified as Phase 1, Phase 2, Phase 3 and Phase 4 on the Site Plan (individually, a "Phase"; collectively, the "Phased Area") shall be limited to construction of, and use as, material storage area(s) for storage of processed materials and by products from the excavation processes of the adjacent quarry ("Overburden Storage" or "Quarry use").

b. Use of the Site for extraction (pits) or mining operations other than Overburden Storage is prohibited.

c. Approximately 25 acres of the Site, located to the North of Phase 4 and identified as Area 5 on the Site Plan, shall not be used for Overburden Storage, but shall remain generally in its natural condition to provide additional buffering and screening of the existing quarry operations located to the east of the Site.

d. Subject to the phasing requirement for the Phased Area in Section 5(k) herein, Applicant reserves the right to timber those portions of the Site located outside of the 100 foot wide perimeter landscape buffer yard as shown on the Site Plan.

3. Transportation

a. All access to and from the Site for Quarry use shall be through the adjacent ~~Quarry~~quarry via an existing driveway connection to SR 1221 (Old Beatty Ford Road) in Rowan County as shown on the Site Plan.

b. The Site also has access via an existing driveway connection on SR 2450 (Gold Hill Road East) as shown on the Site Plan. Access via the Gold Hill E. connection shall be limited to ~~forestry operations,~~ pond maintenance~~,~~ and emergency access.

c. Should the Gold Hill E. access need to be used for commercial use, a driveway permit from NCDOT will be required.

d. Access to and from the Site for timbering of the Phased Area shall be through the adjacent quarry.

4. Buffer and Landscaping:

a. Applicant shall provide a 30 foot building setback around the perimeter of the Site as shown on the Site Plan. Applicant shall provide a 75 foot building setback from Gold Hill Road E. as shown on the Site Plan. Required setbacks are located within the applicable buffer yards as shown on the Site Plan. No buildings are proposed for the Site.

b. Applicant shall provide and maintain a 100 foot wide perimeter landscape buffer yard between the Site and adjacent non-quarry parcels and Gold Hill E. right of way as generally shown on the Site Plan (the "Perimeter Buffer").

c. The Perimeter Buffer shall consist of existing vegetation, said existing vegetation intended to meet or exceed applicable Ordinance requirements for visual screening and separation of uses.

d. Applicant has identified 3 sections of the Perimeter Buffer where Applicant intends to provide additional plantings. These sections are identified as sections A, B and C on sheet 15 of the Site Plan.

e. Quarry use of the Site shall be phased as shown on the Site Plan. The portion of the Perimeter Buffer located within a particular ~~phase~~Phase or

area identified on the Site Plan will be completed prior to commencement of any Quarry use within the ~~phase~~Phase or area.

f. Prior to commencement of any Quarry use within a ~~phased area~~Phase of the Site, Applicant and Planning Department will evaluate the existing vegetation within the Perimeter Buffer for said ~~phase~~Phase. If all or portions of the existing vegetation have died, or otherwise been damaged, a supplemental plantings plan will be developed and submitted for approval to the Planning Department.

g. In those locations identified as A, B and C on sheet 15 of the Site Plan, Applicant will supplement the existing vegetation as described in the corresponding insets shown on sheet 16 of the Site Plan, or as otherwise agreed by Applicant and Planning staff to provide visual screening and separation of uses.

h. No perimeter landscape buffer shall be required between the Site and adjacent, existing quarry or industrial parcels.

i. An existing approximately 20 foot (20') wide access (haul) road encroaches into portions of the perimeter landscape buffer as generally shown on the Site Plan. Upon completion of any timbering activities, Applicant shall stabilize the access road with low maintenance ground cover as described on sheet 15 of the Site Plan.

j. Should the land use relationship between the Site and one or more abutting properties change such that a lesser buffer, or no buffer, would be required, Applicant reserves the right to reduce or eliminate the aforementioned buffer in accordance with Ordinance requirements and the limits of the development envelope may be expanded to include the former buffer area(s).

k. Where applicable, Applicant reserves the right to use existing vegetation to meet any buffer and screening requirements.

l. Applicant agrees to plant a row of Leyland Cypresses on the toe of slope along the perimeter of Phase 3 as shown on the Site Plan.

m. Initial activity for each Phase will be the construction and vegetation of exterior slopes along the non-quarry perimeter of said Phase.

5. Other Conditions:

a. There are currently no existing structures located on the Site.

b. Storage of processed materials and by products shall not be created to a height of more than forty (40) feet, and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

c. There is no existing or proposed sewage disposal, solid waste, or potable water facilities on the Site.

d. The Site has a NCDEQ mining permit (permit #13-04) and is exempt from the Sedimentation Pollution Control Act of 1973 and any requirements for sediment and erosion control plan approval.

e. The Site has a NCDEQ/ NPDES industrial stormwater permit (NCGO 20000) for stormwater and pit discharges from this Site. Development of this Site is not expected to create any post construction impervious areas that will flow away from the pit. Due to the proposed reclamation without future impervious areas, development of this Site does not require a Phase II stormwater permit.

f. All permanent roads, defined as those to be used in excess of one year, and located within three hundred (300) feet of existing residentially zoned land shall be surfaced with a dust free material such as soil cement, bituminous concrete, or portland cement concrete.

g. Roads other than permanent roads shall be treated with dust inhibitors, as specified in the Operations Plan, to reduce and minimize dust generation from road surfaces from either wind or vehicular action. Properly operated water wagons and sprayer irrigation shall be an acceptable method of dust inhibition.

h. Applicant is required by NCDEQ to maintain a reclamation bond for this Site as a condition of its mine permit. Prior to commencement of any mining operations on the Site and the release of any zoning permit(s), Applicant's engineer shall certify to the county the costs of reclamation on a per acre basis. If the reclamation costs exceed the amounts required by the state, then Applicant shall post a bond payable to Cabarrus County for the difference.

i. The site falls on two maps. FEMA FIRM MAPS 3710660400J and 3710660200J, dated 11-5-2008. The subject property does not lie within a FEMA mapped floodplain or floodway.

j. Applicant will outfit mobile equipment operating on the Site with white noise back-up alarms to help control sound to the extent that their use is permitted by the Mine Safety and Health Administration.

k. Timbering of the Site will be phased to coincide with the use of a particular Phase for Quarry use. For avoidance of doubt, the aforementioned phased timbering requirement is not applicable to Area 5 as shown on the Site Plan.

6. BINDING EFFECT OF THE REZONING:

If this Rezoning Plan is approved, all conditions applicable to development of the Site imposed under the Rezoning Plan, and these Site Development Notes will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of the Applicant and subsequent owners of the Site and their respective successors in interest, heirs and assigns. The term “Applicant” shall mean Vulcan Materials Company, its successors in interest, and assigns.

Staff Use Only:
Approved: ____
Denied: ____
Tabled ____

PLANNING STAFF REPORT
CABARRUS COUNTY PLANNING AND ZONING COMMISSION
2/9/2021

Petition: RZON2021-00001 Rezoning

Applicant Information:	R. Susanne Todd, Attorney Johnston, Allison & Hord, P.A. 1065 E. Morehead Street Charlotte, NC 28204
Owner Information:	Vulcan Lands, Inc 1200 Urban Center Drive Birmingham, AL 35242
Existing Zoning:	OI (Office/Institutional)
Proposed Zoning:	GI-CU (General Industrial – Conditional Use)
Proposed Uses:	Storage of processed materials and by-products ("Overburden") from the adjacent quarry operations, forestry operations and pond maintenance. The property owner has also submitted a site specific development plan that will be tied to the conditional use rezoning request in perpetuity.
Parcel ID Number:	6603-26-2969
Property Address:	5300 Gold Hill Road East
Area in Acres:	± 138.38
Site Description:	The subject property is currently Vacant. A perennial stream (Long Creek) meanders along the north eastern border of the subject property. A large pond is located in the northern portion of the subject property. There is an existing access (for agricultural purposes) to the subject property from Gold Hill Road East. There are also connections to the subject property from the quarry operation located to the east of the subject property. There is no floodplain located on the subject property and is it not within an existing watershed.
Adjacent Land Use:	North: Vacant and Industrial (Existing Quarry) East: Residential and Industrial (Existing Quarry) South: Residential West: Residential
Surrounding Zoning:	North: Rowan County IND

East: General Industrial (GI), Agricultural/Open Space (AO) and Office/Institutional (OI)
South: Agricultural/Open Space (AO)
West: Agricultural/Open Space (AO)

Utility Service Provider: Currently, the subject property is not served by public utilities.

Exhibits

A. Staff Report
B. Application
C. Site Plan
D. Water Body Buffer Profiles
E. Landscaping Profiles
F. Staff Maps
G. Operations Plan
H. Reclamation Plan
I. Reclamation Bond
J. Mining Permit
K. General Stormwater Permit
L. Justification for Exceptions and Alternate Methods and Compliance
M. Adjacent Property Owner & Property Owner Letters
N. Vulcan Presentation

Intent of Zoning Districts

PROPOSED DISTRICT: GENERAL INDUSTRIAL – CONDITIONAL USE (GI-CU)

While this district permits both large and small scale industrial and office development, its primary purpose is to provide a location for large scale development. It is designed to permit a very wide variety of industrial uses which may occur both indoor and outdoor, including certain land uses which are permitted in no other zoning district because of their potential to create nuisances for adjoining properties.

RATIONALE

This district is intended to provide a location for both light and heavy industrial uses in a zoning district in which the potential for nuisance complaints from nearby properties is minimized. Certain land uses will be permitted only upon issuance of a conditional use permit. General industrial districts are compatible neighbors with the light industrial and general commercial districts. Care should be taken to site this district on major roadways or near other forms of transportation, such as rail lines, airports, etc.

CONDITIONAL USE

The property owner has requested that the subject property be limited to the storage of processed materials and by-products (“Overburden”) from the adjacent quarry operations,

forestry operations and pond maintenance. The property owner has also submitted a site specific development plan that will be tied to the conditional use in perpetuity.

OFFICE/INSTITUTIONAL

This district is intended to accommodate relatively low intensity office and institutional uses at intensities complementary to residential land use. This district serves as a transitional district between residential land uses and higher intensity non-residential land uses.

RATIONALE

This district is used to provide for low intensity office and institutional uses that can be complementary to adjacent residential land use. This district features employment options and essential services which require a moderate number of average daily trips. These uses will have a minimum impact on the surrounding area because these trips will generally occur during regular business hours, thus, not competing with residential traffic at peak hours or on weekends. This district should be located adjacent to residential districts or in areas where its use would serve as a transition between residential land uses and higher intensity non-residential land uses. Higher intensity non-residential land uses may include commercial districts, light industrial or mixed use districts. When bordering residential districts or residential developments, care should be taken to assure natural or manmade buffering and architectural compatibility so that the nonresidential activities are not a nuisance to residential use.

Agency Review Comments

Planning Review:
Staff Report, Phillip Collins, Senior Planner Cabarrus County

NCDOT Review:
No comments, Marc Morgan, NCDOT

Fire Marshal Review:
No comments, Matthew Hopkins, County Fire Marshal

EMS Review:
No comments. Justin Brines, Cabarrus County EMS Director

Sheriff's Office Review:
No comments. Ray Gilleland, Cabarrus County Sheriff's Lieutenant

Soil and Water Review:
No comments, Tammi Remsburg, Cabarrus County Resource Conservation Manager

Land Use Plan Analysis

The subject property is located adjacent to the US-52/Glenmore Road area which was included in a list of 17 sites for potential economic development opportunities in the 2006 Strategic Plan for Economic Development. The US-52/Glenmore Road area was included due to its situation (proximity to US Hwy 52 and a Rail Line) and its potential for mining and production of lightweight structural aggregate (residual dust material can be used for the production of cultured stone).

The subject property is also located within the Eastern Planning Area. The Easter Area Plan (EAP) recommends that the northeastern portion of Cabarrus County develop as an area of Future Employment. The EAP further addresses this area as follows:

Highway 52 Corridor: Located in the Northeast portion of the planning area, this highway is planned for widening. Eventually, US 52 will be widened from I-85 in Salisbury to US 74 in Wadesboro. The first phase of this project will run from Albemarle south to Wadesboro. The second phase will run north from Albemarle to Salisbury. Given existing uses along this corridor, the portion in Cabarrus County should be reserved for industrial uses.

- Determine if an existing utility provider is willing to serve this area with utility service and/or examine the feasibility of providing utilities with wells and a modular wastewater treatment facility similar to the facility in use in Midland.
- Ensure that appropriate access management techniques are employed to ensure that the highway will function appropriately.
- Work with rail providers to serve this area with freight service and spur lines.

Conclusions

- The site is currently vacant/wooded and zoned Office/Institutional.

- Residentially zoned and used properties border the subject property to the west, south and southeast. The property is bordered by an industrial use to the east and north.

- The proposed use of extraction of earth products/mining is not permitted in the OI district. The proposed rezoning to GI-CU would allow the adjacent mining operation to use the subject property for storage of processed materials and by-products ("Overburden") from its quarry operations. Portions of the subject property are also proposed for forestry operations and pond maintenance.

- The property owner has submitted a site specific development plan that will be tied to the use of the property in perpetuity.
    - If approved, the subject property could only be developed as presented. Any future deviations from the adopted list of uses or proposed site plan would be considered an amendment to the conditional use zoning district and would require Board review and approval.

- The proposed use of the subject property is in conformance with the proposed zoning district and the plans in place for that portion of the County. The proposed uses are permitted in the GI zoning district. Extraction of Earth Products is permitted as a conditional use.

- The proposed general industrial zoning is in keeping with the future employment recommendation of the land use plan.

- The proposed quarry use for the newly acquired property is consistent with the mining operations on adjoining properties which have existed in this area of the County for decades. Quarry related uses on the site are reasonable given the uses on the adjoining properties.

- The subject property is accessed from 5300 Gold Hill Road East and from the mining operation to the east.

- The applicant has provided a site plan that provides appropriate buffering as required by Chapter 9 of the Zoning Ordinance.
    - The applicant states that a 100' buffer will be placed along all of the property lines not adjacent to the existing quarry and it will remain undisturbed. The applicant claims that the existing vegetation within the 100' buffers is sufficient to satisfy the requirements of Chapter 9. The applicant is not proposing a landscape buffer along the property lines adjacent to the existing quarry.

- Approval of this request involve two steps:
    - The first vote is to consider whether or not to change the zoning classification for the property and is a legislative action.
    - The second vote is to consider the site specific development plan and proposed conditions of approval. This is a quasi-judicial action.

Conditions of Approval

Should the Planning and Zoning Commission grant approval of the rezoning and consider issuing the Conditional Use Permit, Staff requests the following conditions become part of the approval and case record:

1. Granting order, stating restrictions and applicable conditions of approval shall be recorded with the deed for the property. (Planning)
2. Any changes to the approved site plan must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit. (Planning)
3. Copies of any state, local, and/or federal permits related to the use of the subject property shall be submitted to the Planning Department as part of the permanent project file. (Planning)
4. Applicant must comply with the terms of NCDEQ/NPDES Industrial Stormwater Permit NCGO 20000 and NCDEQ Mining Permit 13-04. (NCDEQ)

5. Applicant is proposing to use existing landscape to meet required landscape buffers. Where there are gaps in planting areas or planting areas do not conform to ordinance requirements, applicant shall provide supplemental plantings as needed to obtain ordinance conformance. (Zoning)
6. Applicant shall provide a copy of the Reclamation Bond where the Obligee is NCDENR to accompany Surety Rider that was submitted.
7. Applicant shall provide a copy of the survey at a scale of 1:100 at the time of zoning site plan review.

CONDITIONAL USE REZONING APPLICATION

STAFF USE ONLY:

Application/Accela#: _____

Received By: _____

Date Filed: _____

Amount Paid: _____

INSTRUCTIONS/PROCEDURES:

1. Schedule a pre-application meeting with Staff to discuss the procedures and requirements for a conditional use rezoning request.
2. Submit a complete application to the Planning Division. All applications must include the following:
   - Cabarrus County Land Records printout of all adjacent property owners. This includes properties located across the right-of-way and all on-site easement holders. The list must include owner name, address, and Parcel Identification Number.
   - A recent survey or legal description of the property or area of the property to be considered for rezoning.
   - 15 folded copies of the proposed site plan.
   - Any additional documents essential for the application to be considered complete. (Determined at pre-application meeting)
3. Submit cash, check, or money order made payable to Cabarrus County.
   Fees: Conditional Use Rezoning $650.00 for 1st acre
   Plus $15.00 per acre
   (Plus cost of advertising and engineering fees if applicable)
   (if a 3rd submittal is required, an additional review fee will be assessed)

The deadline for submittal is always the same day as the Planning and Zoning Commission Meeting which is the second Tuesday of the month. Applications must be submitted before 2:00 PM that day for consideration on the next available agenda.

Incomplete applications will be returned to the applicant and will not be processed.

PROCESS SUMMARY:

1. Hold a pre-application meeting with Staff to discuss your rezoning request and the map amendment process.
2. Submit a complete application with the appropriate fees to the Cabarrus County Planning Division.

Staff and appropriate agents will review your complete application and site plan and comments will be forwarded to you. You will need to address the comments in writing, revise the site plan accordingly and resubmit a site plan showing that comments are addressed and errors corrected.

3. Once advised that the site plan is correct and ready to be presented to the Planning and Zoning Commission, you will need to submit 18 folded copies of the plan.
4. When the copies of the plan are received, Staff will begin to prepare a staff report, schedule a public meeting date and notify adjacent property owners of the public meeting/public hearing date. A sign advertising the public hearing will also be placed on the property being considered for the conditional use rezoning.

Meeting Information: Meetings are held the second Tuesday of each month at 6:30 PM in the Cabarrus County Governmental Center located in downtown Concord at 65 Church Street, SE.
The Conditional Use Rezoning process includes two separate votes:

1. The Commission will consider the proposed rezoning to determine if it is appropriate.
2. The Commission will consider issuing the Conditional Use Permit and approving the site plan.

Expedited Vote: A vote of ¾ or more of the members of the Planning and Zoning Commission is considered an Expedited Vote and will constitute a final decision for the rezoning portion of the case. If approval or denial of a rezoning request is by a vote of less than ¾ of the members, or if an appeal of the decision is filed within 15 days of the date of the decision, the application will automatically be forwarded to the Board of Commissioners for final consideration at a *de novo* hearing.

Conditional Use Permit: The Conditional Use Permit will be considered as a second step in the conditional use rezoning process. Additional conditions may be added as part of the Conditional Use Permit approval process.

Questions: Any questions related to rezoning your property or to the rezoning process may be directed to the Planning Division at 704-920-2141, between 8 AM and 5 PM, Monday through Friday.

SUBJECT PROPERTY INFORMATION:

Street Address 5300 Gold Hill Road E., Gold Hill NC

PIN(s) (10 digit #) 6603 -- 26 -- 2969 ; _____ -- _____ -- _____

Deed Reference Book 11711 Page 0048

DESCRIPTION OF SUBJECT PROPERTY:

Size (square feet or acres) +/- 138.3800 acres ("site")

Street Frontage (feet) _____

Current Land Use of Property Agricultural/vacant. The Site is largely undisturbed, vacant, wooded land.

Surrounding Land Use
North Industrial/vacant
South Agriculture/vacant
East Quarry/Industrial/Agriculture
West Agriculture/vacant

REQUEST:

Change Zoning From OI To GI-CU

Purpose for Request

To allow Applicant, Vulcan Materials Company to use the site for extraction of earth products ("quarry use"), said use to be limited to storage of processed materials and by-products ("Overburden") from the adjacent quarry operations. Forestry operations (agriculture) and pond maintenance are also allowed.

UTILITY SERVICE:

Water Supply X Well or ___Service Provider_____

Wastewater Treatment _X_Septic Tank(s) or ___Service Provider_____

Proposed Land Use(s):

Extraction of Earth Products ("Quarry") limited to overburden storage, forestry operations and pond maintenance.

Conditions of Approval:

The Site will be limited in use to storage of processed materials and by products from excavation of adjacent quarry.

No rock excavation is proposed for this Site.

Portion of Site will remain in its existing natural state, subject to use for forestry operations and pond maintenance.

A 100 foot perimeter landscape buffer yard of existing vegetation is proposed against adjacent non-quarry parcels instead of the required 75 foot landscape buffer yard.

Along Gold Hill Road E., a 100 foot street yard buffer is proposed instead of the required 10 foot street yard buffer.

Land Use Consistency Statement :

The current Eastern Area Land Use Plan dated June 16, 2003, does not address current or future development plans for this area. The future land use map shows this area as "agricultural/open space".

The Site abuts an existing, operating quarry. The rezoning will not adversely affect surrounding land uses. The proposed Quarry use is consistent with the mining operations on adjoining properties that have existed in the area for decades. Quarry use on the Site is reasonable given the uses on the adjoining properties.

PROPERTY OWNER/AGENT/APPLICANT INFORMATION:

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner. In addition, it is understood and acknowledged that if the property is rezoned as requested and the Conditional Use Permit authorized, the property involved in this request will be perpetually bound by the use(s) authorized and subject to such conditions as imposed, unless subsequently changed or amended through the rezoning process. It is further understood and acknowledged that it is the responsibility of the petitioner to file the Development Plan in the Cabarrus County Register of Deeds Office as a deed restriction upon the subject property.

If, after two years from the date of approval of the CU District, substantial construction has not begun, the property in question may be changed to another zoning designation after a public hearing is held in compliance with the required procedure for a zoning map amendment.

I do hereby certify that all information which I have provided for this application is, to the best of my knowledge, correct.

PROPERTY OWNER	PROPERTY DEVELOPER/AGENT
Brian Pace,Vice President, Vulcan Lands, Inc.	R. Susanne Todd, Johnston, Allison & Hord,P.A.
NAME	NAME
1200 Urban Center Drive	1065 E. Morehead St.
ADDRESS	ADDRESS
Birmingham, AL 35242	Charlotte, NC 28204
CITY, STATE, ZIP CODE	CITY, STATE, ZIP CODE
	704-332-1181 (704 - 998 - 2306)
PHONE NUMBER	PHONE NUMBER
	704-376-1628
FAX NUMBER	FAX NUMBER
	stodd@jahlaw.com
E-MAIL ADDRESS	E-MAIL ADDRESS

Signature of Owner: _____ Date: 11-3-2020

Signature of Developer/Agent: _____ Date: 12/15/20

SUPPLEMENTAL INFORMATION – VULCAN MATERIALS COMPANY
APPLICATION FOR CONDITIONAL USE REZONING
EXTRACTION OF EARTH PRODUCTS

In accordance with Chapter 8 of the Cabarrus County Zoning Ordinance, Vulcan Materials Company ("Vulcan") offers the following supplemental information in support of its Application for a conditional use rezoning for use of that 138.8 Acre site identified as Cabarrus County PIN#6603- 26-2969 in its application dated December 18, 2020 to store processed material and by-products from the extraction of earth products (the "Site").

OPERATIONS PLAN

I Date Operations Begin and their Expected Duration:

The Site will be used to store processed materials or by-products (collectively known as "overburden") of the excavation processes taking place on contiguous sites. The Site will also be used for Forestry operations. Excavation on adjacent properties is already in process and already producing overburden. The Site to be used to store processed materials and by-products will be used immediately for that purpose as excavation takes place on lands adjacent to it.

II. Proposed hours and days of operations.

The existing extractive use operation located contiguous to the Site may operate 24 hours 7 days a week without restrictions. Vulcan proposes to limit operations on the Site to between the hours of 6:00 a.m. to 8:00 p.m. Monday through Saturday and 7:00 a.m. to 6:00 p.m. on Sunday with the exception if we are required to supply materials needed for NCDOT construction or maintenance work that specifies alternative delivery times because of traffic control or other factors. In this case, Vulcan will utilize the Site to store the processed material and by-products from the extraction processes during the same hours.

III. Estimated type and volume of extraction.

No extraction activities are proposed for this Site.

IV. Description of method of operation, including the disposition of topsoil, overburden and any by-products.

By its very nature, mining (extraction) takes place in a natural progression with the initial installation of erosion/sediment control structures as specified in our state mining permit followed by the removal and stockpiling of the soil and soft rock (collectively known as "overburden") overlying the hard rock deposit. Once exposed, the rock is excavated in a series of lifts or benches. In broad terms, the depth of the excavation is limited by the aerial extent of the property contained in the mining permit boundary.

Permanent storage of processed materials or by-products of the crushing process is currently proposed for this Site. Storage of spoil piles and other accumulations of by-products shall not be created to a height of more than forty (40) feet above the original contour and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

V. Description of equipment to be used in the excavation process.

No excavation activities are proposed for this Site.
Basic earth moving equipment consisting of off road haul trucks, bulldozers, and pans will be used to transport the overburden to the Site. Logging trucks will be used for removal of trees and other debris in connection with Forestry operations that are also proposed for a portion of Site.

VI. Any phasing of the operations and the relationship among the various phases.

The Site will be used to store overburden from the excavation processes on adjacent properties. Use of the Site for storage of overburden will be phased as shown on the Site Plan. Vulcan anticipates initial operations will move across this parcel being used for overburden over time based upon the market demands for construction aggregate products in the region.

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EXTRACTION OF EARTH PRODUCTS

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REHABILITATION/RECLAMATION PLAN

Statement of planned rehabilitation of the excavated land including detailed methods of accomplishment and planned future use of the rehabilitated land.

See Reclamation Plan on Rezoning Site Plan for details. Please also see approved Mining Permit modified September 30, 2020 to include the Site (as modified, the "Mining Permit"). The Mining Permit includes the Approved Reclamation Plan for the Gold Hill Quarry.

Reclamation at Gold Hill Quarry is an ongoing process. Through on-site inspections, Vulcan Materials Company monitors, on a periodic basis, the Site for areas that may need maintenance or construction of additional erosion and other control measures. The areas of the Site identified to be used for overburden storage, will be sloped for drainage, contoured, graded and vegetated pursuant to the approved seed mix. All fill slopes are to be constructed with 2:1 slopes or flatter. The slopes are to be seeded with approved seed mix and stabilized. The Revegetation Plan is set forth within the Mining Permit, pages 13-14.

A map showing the final topography, after rehabilitation, to the same scale as the Site plan. It shall also depict any water areas and methods of preventing stagnation and pollution, landscaping and ground cover proposed to be installed and the amount and type of any backfill, if any, to be employed.

See Site Plan.

A phasing and timing plan, related to the phasing and timing portion of the Operations Plan, showing the progression of the rehabilitation and the date to be completed.

Please see Phases 1-4 as identified on the Site Plan. The Site should provide storage space for the operation of the Gold Hill Quarry in excess of 50 years. Reclamation of the parcel will be conducted contemporaneously with mining at the adjacent properties to the extent feasible and will be completed once the parcel is no longer used for overburden.

The method of disposing of all equipment, structures, dikes and spoil piles associated with the operations.

All equipment and structures, if any, will be removed from the Site and all spoil piles will be

covered with topsoil, seeded, and a permanent ground cover established. Proposed reclamation plan once excavation and operations are terminated is to restore the land to vegetation pursuant to the Revegetation Plan.

A written legal description or survey of the Site, prepared by a North Carolina registered land surveyor of engineer is included with the Site Plan.

A copy of the legal description is included on the site plan.

The name, address and signature of land owners and applicants. *Provided in the application form.*

[SIGNATURES ON THE FOLLOWING PAGE]

APPLICANT:

VULCAN MATERIALS COMPANY
4401 North Patterson Avenue
Winston Salem NC 27105

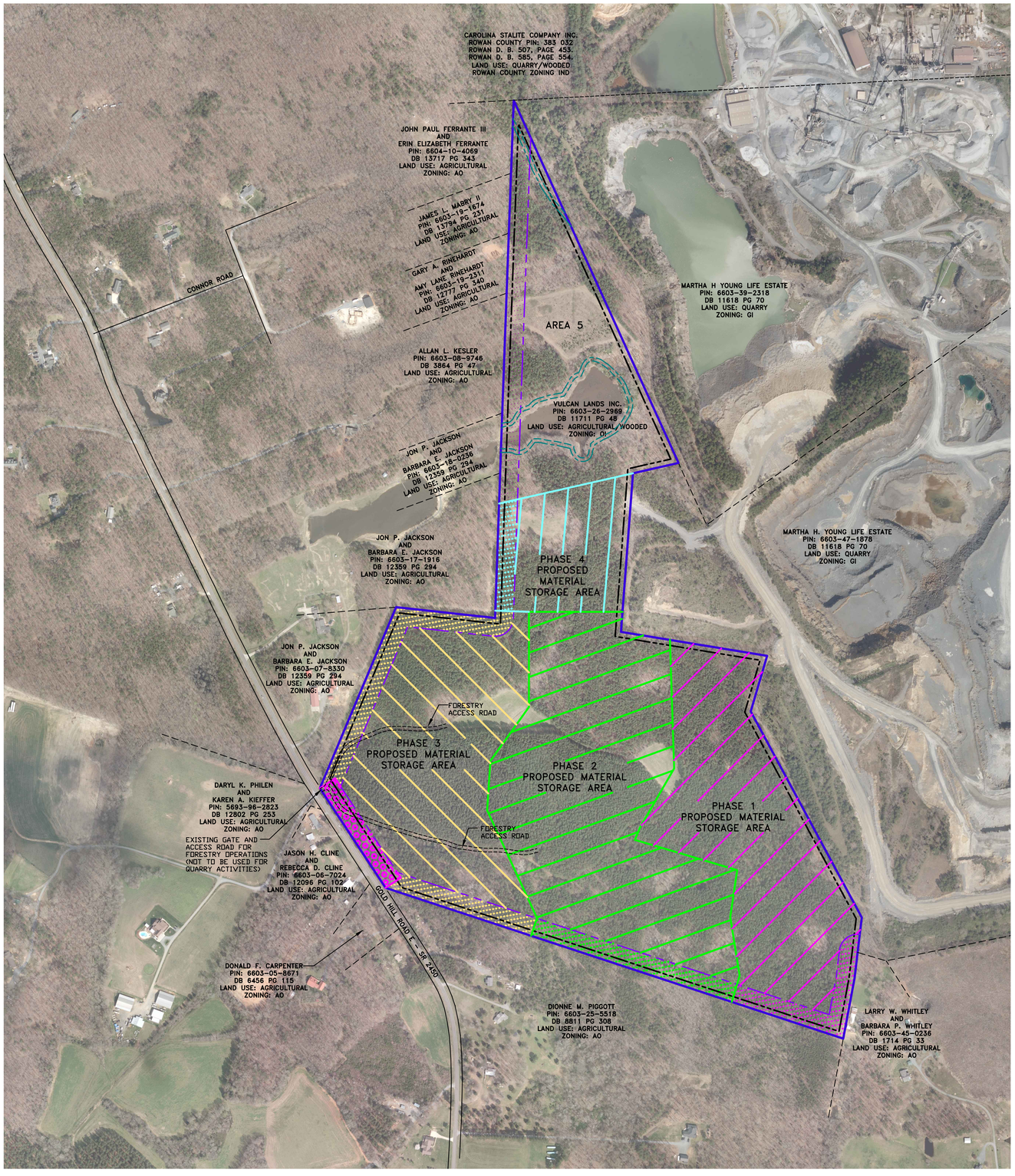
BY: Brian Pace
ITS: President, Mideast Division

PROPERTY OWNER:

VULCAN LANDS, INC.
1200 Urban Center Drive
FAS 1401-843
Birmingham, AL 35242

BY: Brian Pace
ITS: Vice President

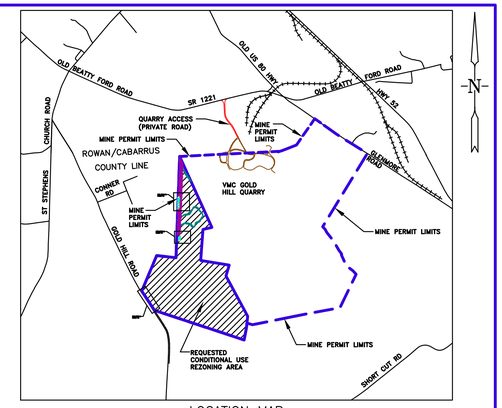
Exhibit C



SITE MAP
SCALE : 1" = 300'

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

FEMA FLOODPLAIN NOTES:
THE SITE IS LOCATED ON FEMA FIRM MAP PANELS 3710660400J AND 3710660200J, DATED 11-5-2008. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A FEMA MAPPED FLOODPLAIN OR FLOODWAY.



LOCATION MAP
SCALE : 1" = 2000'

SHEET LEGEND

SITE MAP	SHEET 1	PHASE 3 GRADING PLAN	SHEET 12
SITE DEVELOPMENT NOTES	SHEET 2	PHASE 4 GRADING PLAN	SHEET 13
PROPERTY SURVEY	SHEET 3	FINAL SITE GRADING	SHEET 14
SITE PLAN	SHEET 4	BUFFER PLAN SHEET 1	SHEET 15
SITE PLAN	SHEET 5	BUFFER PLAN SHEET 2	SHEET 16
SITE PLAN	SHEET 6	DETAILS	SHEET 17
SITE PLAN	SHEET 7	DETAILS	SHEET 18
RECLAMATION PLAN	SHEET 8	DETAILS	SHEET 19
RECLAMATION PLAN	SHEET 9	DETAILS	SHEET 20
PHASE 1 GRADING PLAN	SHEET 10	DETAILS	SHEET 21
PHASE 2 GRADING PLAN	SHEET 11		

MINE LEGEND

VULCAN LANDS INC PROPERTY LINE
ADJACENT PROPERTY LINE
100' UNDISTURBED CLEARING LIMITS
CABARRUS CO. ZONING BUILDING SETBACK
WATERBODY BUFFER ZONE BUFFER
WATERBODY BUFFER ZONE NO BUILD BUFFER
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
PHASE 1
PHASE 2
PHASE 3
PHASE 4
AREA 5
STREET YARD LANDSCAPED BUFFER

SITE DATA:

PROPERTY INFORMATION:	PIN: 6603-26-2969
PROPERTY ADDRESS:	5300 GOLD HILL RD E
DEED REFERENCE:	DEED BOOK 11711 PAGE 48
TOTAL AREA:	138.388 ACRES (6,028,181 SF)
OWNER:	VULCAN LANDS INC. 1200 URBAN CENTER DR BIRMINGHAM, AL 35242 336-767-4600
CURRENT ZONING:	OI (OFFICE/INSTITUTIONAL)
PROPOSED ZONING:	GI-CU (GENERAL INDUSTRIAL - CONDITIONAL USE)
CURRENT LAND USE:	AGRICULTURAL/WOODED
PROPOSED LAND USE:	MATERIAL STORAGE OF EARTH PRODUCTS (QUARRY), FORESTRY (AGRICULTURE)
PROPOSED BUILDINGS:	NONE
FRONT SETBACK:	75 FEET
REAR/SIDE SETBACK:	30 FEET
APPLICANT:	VULCAN MATERIALS COMPANY 4401 NORTH PATTERSON AVE, WINSTON SALEM, NC 27105 336-767-4600
CIVIL ENGINEER:	G. WESLEY WEBB, PE ALLEY, WILLIAMS, CARMEN & KING, INC. 120 SOUTH MAIN STREET KANNAPOLIS, NC 28081 704-938-1515

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3-23-21
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Vulcan Materials Company

REV#1 PER CABARRUS COUNTY 3-23-21

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE MAP

JOB NO. 11526
SHEET NO. 1
OF: 21

SITE DEVELOPMENT NOTES

1. General Provisions

a. These Site Development Notes form a part of the Conditional Plan associated with the Conditional Use rezoning application filed by Vulcan Materials Company ("Applicant") to accommodate the development of approximately 138.388 Acres of real property located off Gold Hill Road East, in Gold Hill (Cabarrus County), North Carolina for Extraction of Earth Products ("Quarry") use, said real property being further identified as Cabarrus County PIN # 6603-26-2969 (the "Site").

b. Applicant proposes the rezoning of the Site from O/I (Office/Institutional) to GI-CU (General Industrial-Conditional Use). These Site Development Notes, the Site Plan (consisting of Sheets 1-21), Applicant's rezoning application and any additions or revisions thereof, are collectively referred to as the "Rezoning Plan" or "Conditional Plan." Development of the Site will be governed by the Rezoning Plan as well as applicable provisions of the Cabarrus County Development Ordinance ("Ordinance").

c. Alterations to the Conditional Plan are subject to Chapter 13 of the Ordinance.

2. Permitted Uses:

a. Use of the Site shall be limited to construction of, and use as, material storage area(s) for storage of processed materials and by products from the excavation processes of the adjacent quarry ("Overburden Storage").

b. Use of the Site for extraction (pits) or mining operations other than Overburden Storage is prohibited.

c. Approximately 25 acres of the Site, located to the North of Phase 4 and identified as Area 5 on the Site Plan, shall not be used for Overburden Storage, but shall remain generally in its natural condition to provide additional buffering and screening of the existing quarry operations located to the east of the Site.

d. Applicant reserves the right to timber those portions of the Site located outside of the 100 foot wide perimeter landscape buffer yard as shown on the Site Plan.

3. Transportation

a. All access to and from the Site for Quarry use shall be through the adjacent Quarry via an existing driveway connection to SR 1221 (Old Beatty Ford Road) in Rowan County as shown on the Site Plan.

b. The Site also has access via an existing driveway connection on SR 2450 (Gold Hill Road East) as shown on the Site Plan. Access via the Gold Hill E. connection shall be limited to forestry operations, pond maintenance, and emergency access.

c. Should the Gold Hill E. access need to be used for commercial use, a driveway permit from NCDOT will be required.

4. Buffer and Landscaping:

a. Applicant shall provide a 30 foot building setback around the perimeter of the Site as shown on the Site Plan. Applicant shall provide a 75 foot building setback from Gold Hill Road E. as shown on the Site Plan. Required setbacks are located within the applicable buffer yards as shown on the Site Plan. No buildings are proposed for the Site.

b. Applicant shall provide and maintain a 100 foot wide perimeter landscape buffer yard between the Site and adjacent non-quarry parcels and Gold Hill E. right of way as generally shown on the Site Plan (the "Perimeter Buffer").

c. The Perimeter Buffer shall consist of existing vegetation, said existing vegetation intended to meet or exceed applicable Ordinance requirements for visual screening and separation of uses.

d. Applicant has identified 3 sections of the Perimeter Buffer where Applicant intends to provide additional plantings. These sections are identified as sections A, B and C on sheet 15 of the Site Plan.

e. Quarry use of the Site shall be phased as shown on the Site Plan. The portion of the Perimeter Buffer located within a particular phase or area identified on the Site Plan will be completed prior to commencement of any Quarry use within the phase or area.

f. Prior to commencement of any Quarry use within a phased area of the Site, Applicant and Planning Department will evaluate the existing vegetation within the Perimeter Buffer for said phase. If all or portions of the existing vegetation have died, or otherwise been damaged, a supplemental plantings plan will be developed and submitted for approval to the Planning Department.

g. In those locations identified as A, B and C on sheet 15 of the Site Plan, Applicant will supplement the existing vegetation as described in the corresponding insets shown on sheet 16 of the Site Plan, or as otherwise agreed by Applicant and Planning staff to provide visual screening and separation of uses.

h. No perimeter landscape buffer shall be required between the Site and adjacent, existing quarry or industrial parcels

i. An existing approximately 20 foot (20') wide access (haul) road encroaches into portions of the perimeter landscape buffer as generally shown on the Site Plan. Upon completion of any timbering activities, Applicant shall stabilize the access road with low maintenance ground cover as described on sheet 15 of the Site Plan

j. Should the land use relationship between the Site and one or more abutting properties change such that a lesser buffer, or no buffer, would be required, Applicant reserves the right to reduce or eliminate the aforementioned buffer in accordance with Ordinance requirements and the limits of the development envelope may be expanded to include the former buffer area(s).

k. Where applicable, Applicant reserves the right to use existing vegetation to meet any buffer and screening requirements.

5. Other Conditions:

a. There are currently no existing structures located on the Site.

b. Storage of processed materials and by products shall not be created to a height of more than forty (40) feet, and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

c. There is no existing or proposed sewage disposal, solid waste, or potable water facilities on the Site.

d. The Site has a NCDEQ mining permit (permit #13-04) and is exempt from the Sedimentation Pollution Control Act of 1973 and any requirements for sediment and erosion control plan approval.

e. The Site has a NCDEQ/ NPDES industrial stormwater permit (NCGO 20000) for stormwater and pit discharges from this Site. Development of this Site is not expected to create any post construction impervious areas that will flow away from the pit. Due to the proposed reclamation without future impervious areas, development of this Site does not require a Phase II stormwater permit.

f. All permanent roads, defined as those to be used in excess of one year, and located within three hundred (300) feet of existing residentially zoned land shall be surfaced with a dust free material such as soil cement, bituminous concrete, or portland cement concrete.

g. Roads other than permanent roads shall be treated with dust inhibitors, as specified in the Operations Plan, to reduce and minimize dust generation from road surfaces from either wind or vehicular action. Properly operated water wagons and sprayer irrigation shall be an acceptable method of dust inhibition.

h. Applicant is required by NCDEQ to maintain a reclamation bond for this Site as a condition of its mine permit. Prior to commencement of any mining operations on the Site and the release of any zoning permit(s), Applicant's engineer shall certify to the county the costs of reclamation on a per acre basis. If the reclamation costs exceed the amounts required by the state, then Applicant shall post a bond payable to Cabarrus County for the difference.

i. The site falls on two maps. FEMA FIRM MAPS 3710660400J and 3710660200J, dated 11-5-2008. The subject property does not lie within a FEMA mapped floodplain or floodway.

6. BINDING EFFECT OF THE REZONING:

If this Rezoning Plan is approved, all conditions applicable to development of the Site imposed under the Rezoning Plan, and these Site Development Notes will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of the Applicant and subsequent owners of the Site and their respective successors in interest, heirs and assigns. The term "Applicant" shall mean Vulcan Materials Company, its successors in interest, and assigns.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...

3-23-21

Vulcan Materials Company

REV#1 PER CABARRUS COUNTY 3-23-21

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

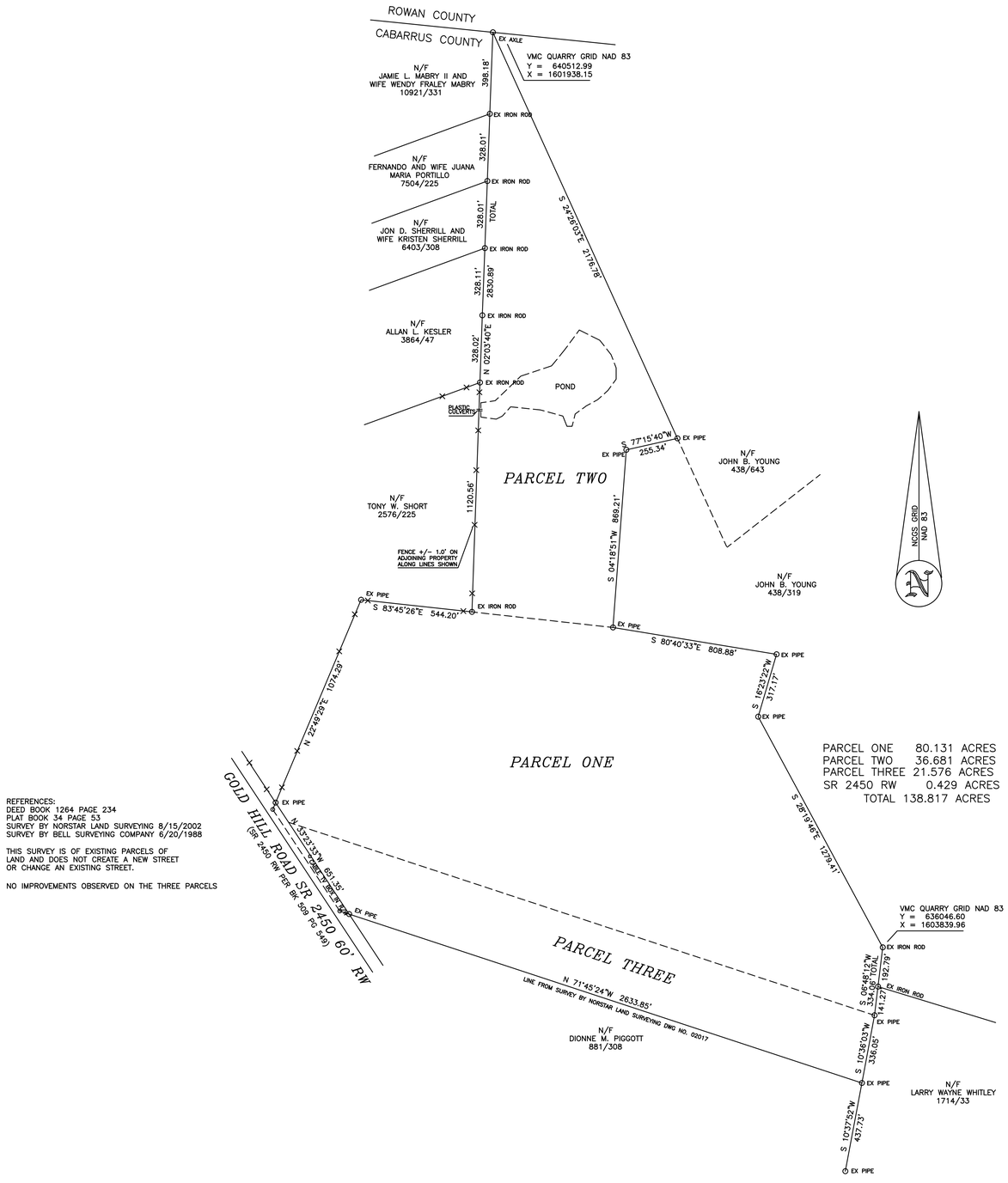
SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE DEVELOPMENT NOTES

JOB NO. 11526
SHEET NO. 2
OF: 21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



All that tract or parcel of the land located in Cabarrus County, North Carolina being more particularly described as follows:

BEGINNING at an existing iron pipe located in the Northeastern right-of-way line of Gold Hill Road (SR 2450), said iron being the Southernmost corner of Lot #7 as shown on map entitled SUBDIVISION MAP OF 220.96 ACRES ON GOLD HILL ROAD recorded in Plat Book 34, Page 53, Cabarrus County Registry and running thence with the East line of Lot 7 North 22° 49' 29" East 1074.29 feet to an existing pipe in the Southern line of Lot #8 as shown in the aforementioned Plat; thence South 83° 45' 26" East 544.20 feet to an existing iron rod, said rod being a Southeast corner of property conveyed to Tony W. Short by deed recorded in Book 2576, Page 225, Cabarrus County Registry and also being the Southeast corner of Lot #8 as shown on the aforementioned Plat; thence with the East lines of properties owned by Tony W. Short (2576DB225), Allan L. Kesler (3864DB47), Jon D. Sherrill and wife, Kristen Sherrill (6403DB308), Fernando Portillo and wife, Juana Maria Portillo (7504DB225) and Jamie L. Mabry, II and wife, Wendy Fraley Mabry (10921DB331) North 02° 03' 40" East crossing irons at 1120.56 feet, 1448.58 feet, 1776.69 feet, 2104.70 feet, 2432.71 feet and continuing 398.18 feet for a total distance of 2830.89 feet to an existing axle located in the Rowan/Cabarrus County line, said axle being a Northwest corner of property conveyed to John B. Young by deed recorded in Book 438, Page 643, Cabarrus County Registry and having VMC Quarry Grid Coordinates of Y = 640512.99 and X = 1601938.15; thence with the West line of John B. Young South 24° 26' 03" East 2176.78 feet to an existing pipe, a corner of the John B. Young property as described in deed recorded in Book 438, Page 319, Cabarrus County Registry; thence with the West lines of John B. Young the six following courses and distances: (1) S 77° 15' 40" West 255.34 feet to an existing pipe; (2) South 04° 18' 51" West 869.21 feet to an existing pipe; (3) South 80° 40' 33" East 808.88 feet to an existing pipe; (4) South 16° 23' 22" West 317.17 feet to an existing pipe; (5) South 28° 19' 46" East 1279.41 feet to an existing iron rod, said rod having VMC Quarry Grid Coordinates of Y=636046.60 and X=1603839.96, and (6) South 06° 48' 12" West 192.79 feet to an existing iron rod; thence continuing South 06° 48' 12" West 141.27 feet to an existing pipe; thence South 10° 36' 03" West 336.05 feet to an existing pipe, on the northeast corner of property conveyed to Dionne M. Piggott as recorded in Book 881, Page 308, Cabarrus County Registry; thence with the North line of Piggott N 71° 45' 24" West 2633.85 feet to an existing pipe in the Northeastern right-of-way line of Gold Hill Road (SR 2450); thence with the Northeastern right-of-way line of Gold Hill Road N 33° 23' 33" West 651.35 feet to the point and place of beginning, containing 138.388 acres more or less, as shown on survey entitled THE "SHAFER" TRACT AT THE GOLD HILL NORTH CAROLINA QUARRY prepared by Helms Surveying Company dated August 17, 2015 (designated drawing #15-0803).

VULCAN LANDS INC.
CABARRUS COUNTY PIN: 6603-26-2969
CABARRUS COUNTY DB 11711 PG 48
LAND USE: AGRICULTURAL/WOODED
CABARRUS COUNTY ZONING: OI

REFERENCES:
DEED BOOK 1264 PAGE 234
PLAT BOOK 34 PAGE 53
SURVEY BY NORSTAR LAND SURVEYING 8/15/2002
SURVEY BY BELL SURVEYING COMPANY 6/20/1988

THIS SURVEY IS OF EXISTING PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

NO IMPROVEMENTS OBSERVED ON THE THREE PARCELS

SURVEY PREPARED BY HELMS SURVEYING COMPANY AND SEALED BY DOUGLAS M HELMS, PLS L-3087 AND DATED 8-17-2015

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ACD005E6BA648B...

12-18-20

Vulcan Materials Company

0 300 600 900

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

SCALE	
PLAN:	1" =300'
PROFILE	
HORIZ.:	
VERT.:	
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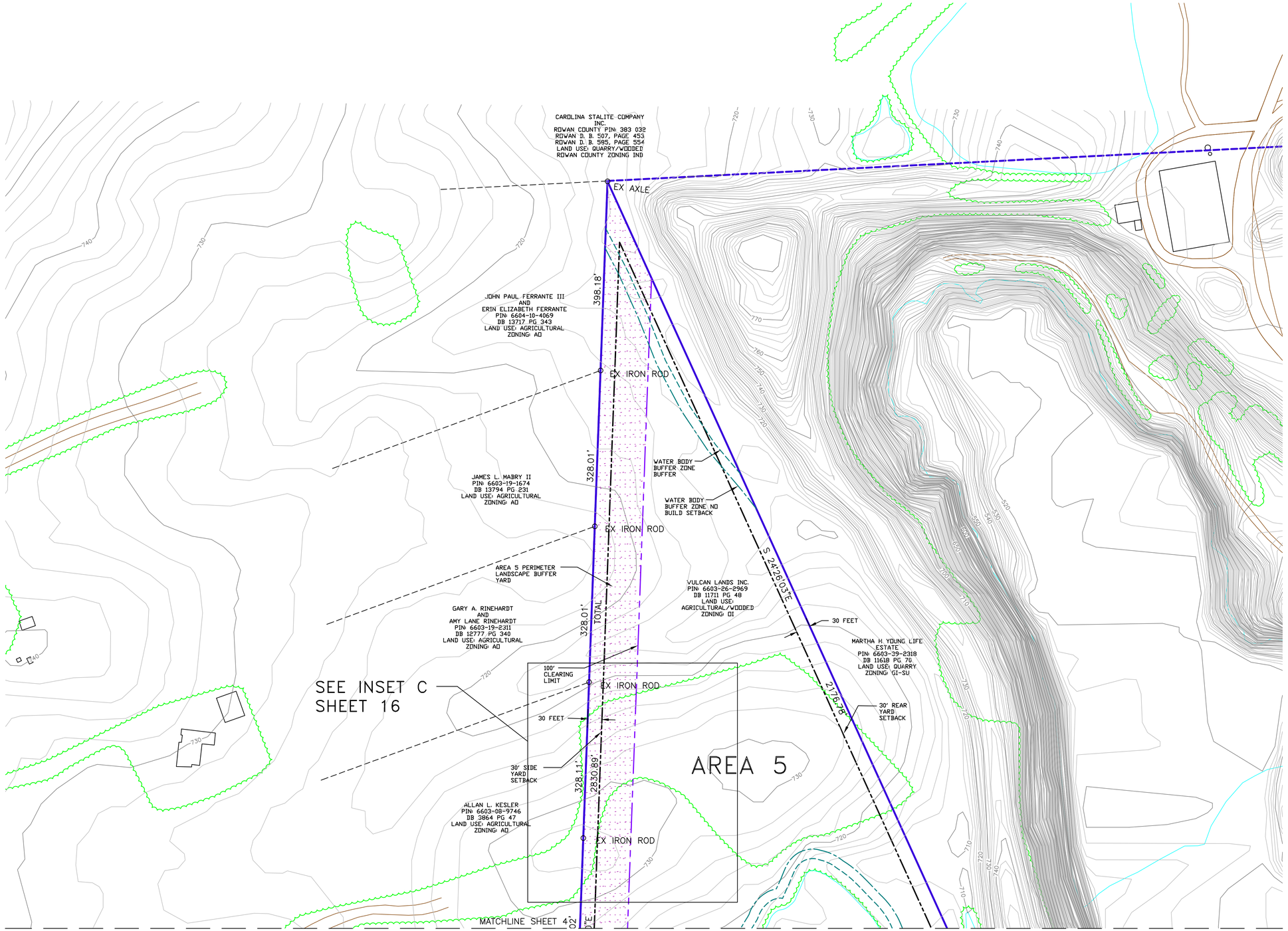
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PROPERTY SURVEY

JOB NO. 11526
SHEET NO. 3
OF: 21



2' CONTOURS ARE BASED ON THE 2007 LIDAR DATA PROVIDED BY THE NC FLOODPLAIN MAPPING PROGRAM.
HORIZONTAL DATUM: NORTH CAROLINA, NAD83, US FT
VERTICAL DATUM: NAVD88

PLANIMETRIC MAPPING (EXCLUDING CONTOURS) PROVIDED BY TUCK MAPPING SOLUTIONS, INC. MAPPING IS BASED ON AN AERIAL PHOTO DATED 3-20-20 AND A MAP ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

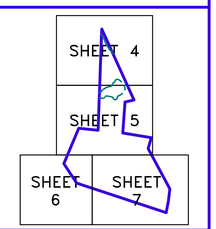
PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

SITE PLAN SHEET LEGEND



SITE PLAN NOTES:
1. 100 FOOT PERIMETER LANDSCAPE BUFFERS ARE TO BE PROVIDED ALONG EACH PHASE OF THE SITE DEVELOPMENT. SEE NOTE NO. 4 ON SHEET 2
2. SEE THE SHEETS 10 THROUGH 14 FOR THE PHASED GRADING ASSOCIATED WITH THE DEVELOPMENT OF THE MATERIAL STORAGE AREA.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...
3-23-21

Vulcan Materials Company

0 100 200 300

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE PLAN:	1" = 100'
PROFILE HORIZ.:	
PROFILE VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

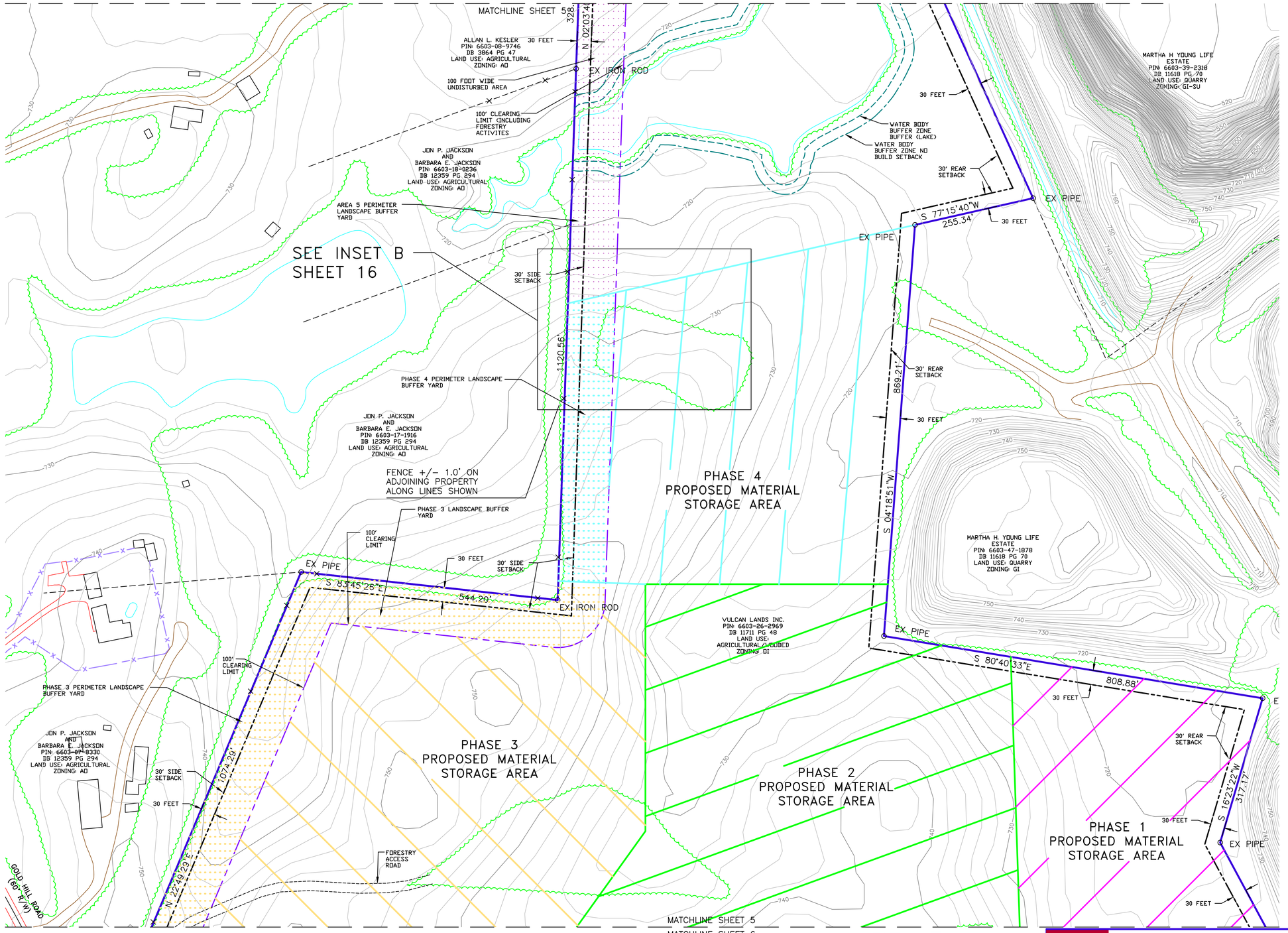
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 4
OF: 21

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



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MAPPING LEGEND

- INDEX CONTOUR (3500)
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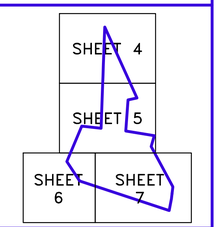
SITE PLAN SHEET LEGEND



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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3AD0005E6BA6488...
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Vulcan Materials Company

0 100 200 300

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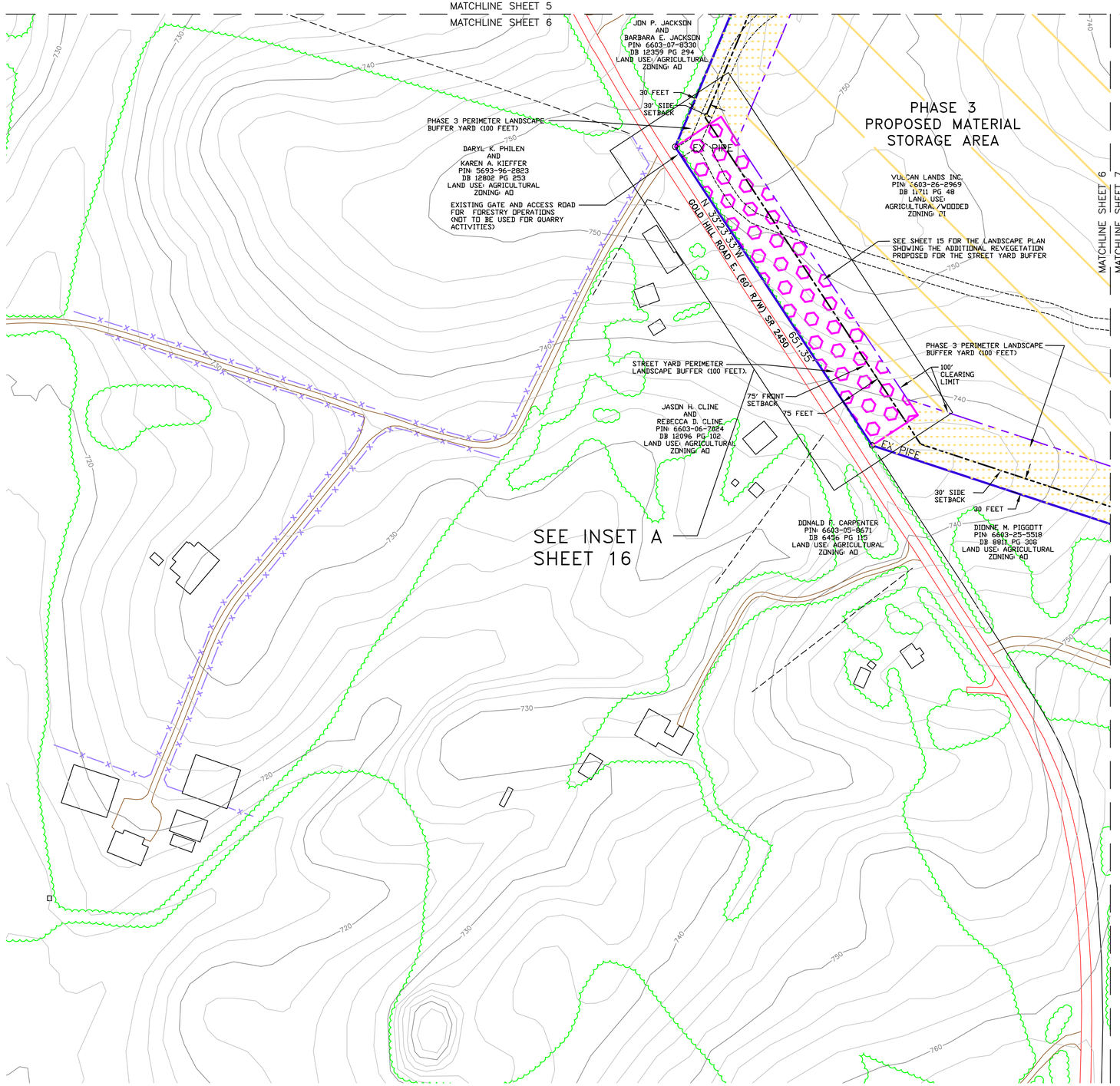
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 5
OF: 21



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HORIZONTAL DATUM: NORTH CAROLINA, NAD83, US FT
VERTICAL DATUM: NAVD88

PLANIMETRIC MAPPING (EXCLUDING CONTOURS) PROVIDED BY TUCK MAPPING SOLUTIONS, INC. MAPPING IS BASED ON AN AERIAL PHOTO DATED 3-20-20 AND A MAP ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

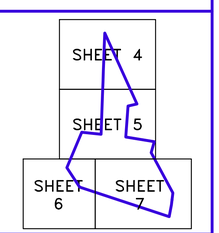
PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

SITE PLAN
SHEET LEGEND



SITE PLAN NOTES:
1. 100 FOOT PERIMETER LANDSCAPE BUFFERS ARE TO BE PROVIDED ALONG EACH PHASE OF THE SITE DEVELOPMENT. SEE NOTE NO. 4 ON SHEET 2.
2. STREET YARD BUFFER IS TO BE PROVIDED ALONG GOLD HIILL ROAD E. SEE NOTE NO. 4 ON SHEET 2
3. SEE THE SHEETS 10 THROUGH 14 FOR THE PHASED GRADING ASSOCIATED WITH THE DEVELOPMENT OF THE MATERIAL STORAGE AREA.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3ADD005E6BA648B...
3-23-21

Vulcan Materials Company

0 100 200 300

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-18-20
PLAN: 1" = 100'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

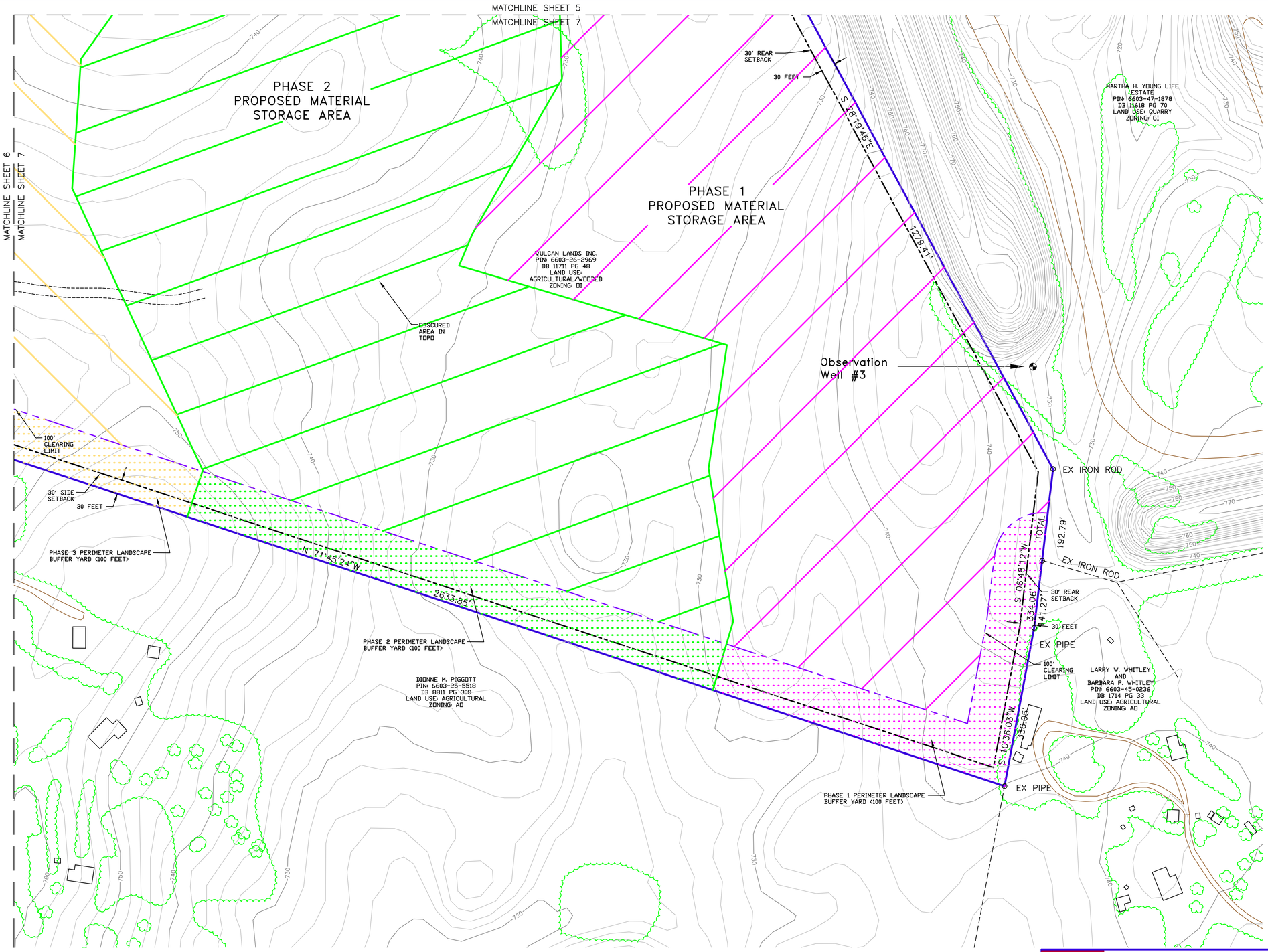
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 6
OF: 21

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



2' CONTOURS ARE BASED ON THE 2007 LIDAR DATA PROVIDED BY THE NC FLOODPLAIN MAPPING PROGRAM.
HORIZONTAL DATUM: NORTH CAROLINA, NAD83, US FT
VERTICAL DATUM: NAVD88

PLANIMETRIC MAPPING (EXCLUDING CONTOURS) PROVIDED BY TUCK MAPPING SOLUTIONS, INC. MAPPING IS BASED ON AN AERIAL PHOTO DATED 3-20-20 AND A MAP ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

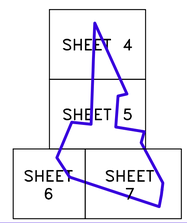
MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1 / PHASE 2 / PHASE 3 / PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1 / PHASE 2 / PHASE 3 / PHASE 4 / AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

SITE PLAN SHEET LEGEND



SITE PLAN NOTES:
1. 100 FOOT PERIMETER LANDSCAPE BUFFERS ARE TO BE PROVIDED ALONG EACH PHASE OF THE SITE DEVELOPMENT. SEE NOTE NO. 4 ON SHEET 2
2. SEE THE SHEETS 10 THROUGH 14 FOR THE PHASED GRADING ASSOCIATED WITH THE DEVELOPMENT OF THE MATERIAL STORAGE AREA.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3A2D005E6BA648B... 3-23-21

Vulcan Materials Company

0 100 200 300

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	
PLAN:	1" = 100'
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

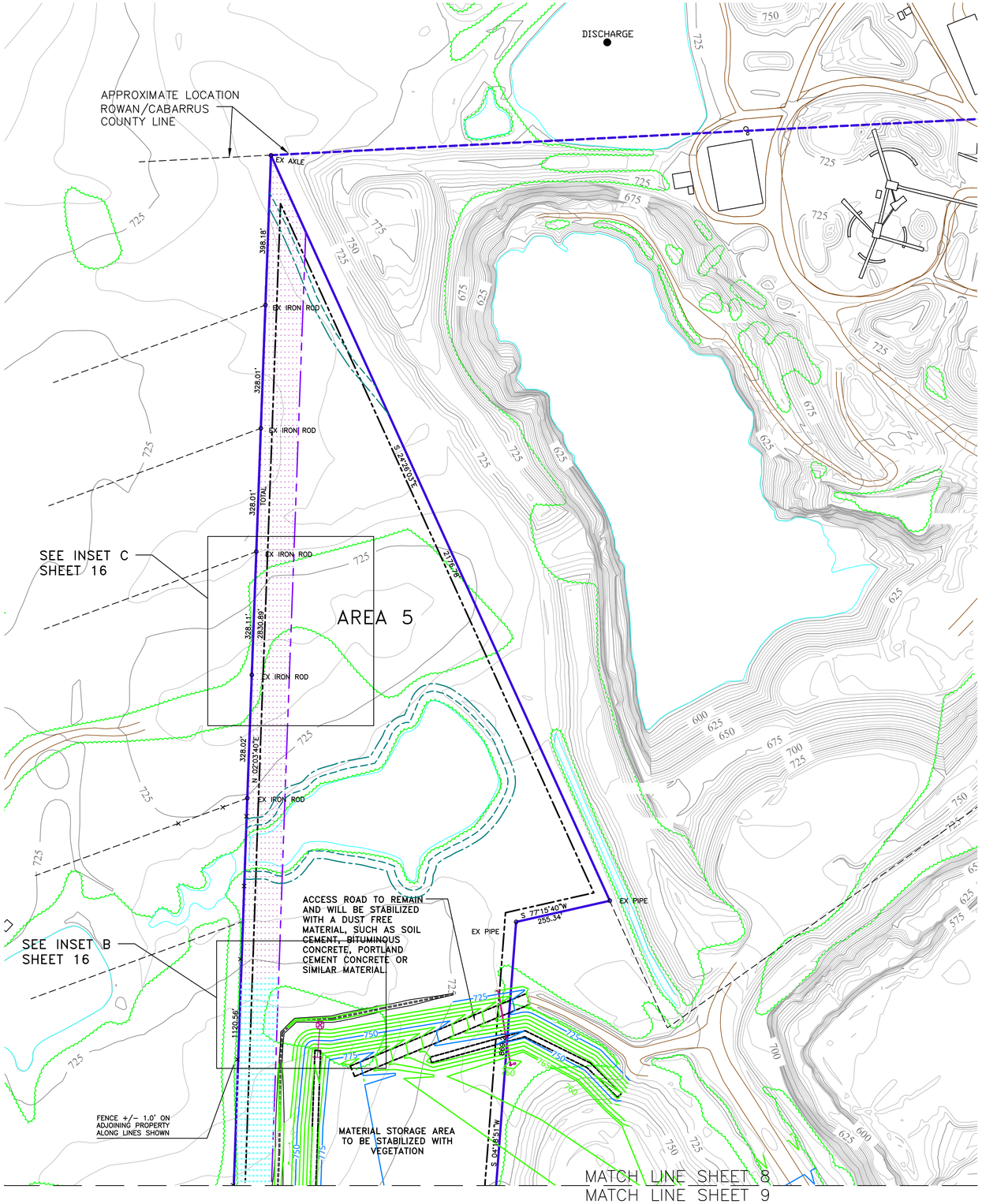
2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

SITE PLAN

JOB NO. 11526
SHEET NO. 7
OF: 21

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



REV#1 PER CABARRUS COUNTY 3-23-21

GOLD HILL QUARRY
CABARRUS COUNTY

REVEGETATION PLAN
SPRING - FALL - WINTER SEED MIXES

SPRING RATE MARCH - JUNE

Rye Grain	15 - 20 lbs. per acre
Tall Fescue	40 - 80 lbs. per acre
Switchgrass	8 lbs. per acre
Va 70 Shrub Lespedeza	20 lbs. per acre
Sericea Lespedeza	15 - 20 lbs. per acre
Or Red Clover	8 - 14 lbs. per acre
Hulled Common Bermuda Grass	4 lbs. per acre
Or Weeping Love Grass	2 - 4 lbs. per acre

FALL RATE (MID) AUGUST - OCTOBER

Rye Grain	40 lbs. per acre
Tall Fescue	80 lbs. per acre
Sericea Lespedeza (Unscarified)	40 lbs. per acre
Orchard Grass	30 lbs. per acre
White Clover	5 lbs. per acre

WINTER RATE NOVEMBER - FEBRUARY

Rye Grain	40 lbs. per acre
Unhulled Bermuda Grass	10 lbs. per acre
Unscarified Sericea Lespedeza	30 lbs. per acre
Tall Fescue	80 lbs. per acre

FERTILIZER ALL SEASONS

10 - 20 - 20	1500 lbs. per acre
Lime	4000 lbs. per acre
Mulch	70 bales per acre

Mulch to be anchored by one of the following methods:

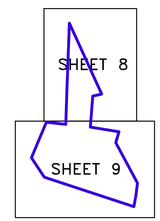
1. Crimping with mulch anchoring tool; or
2. Tack with asphalt emulsion - 400 gal. per acre or
3. 1500 pounds/acre fiber mulch

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER



RECLAMATION
PLAN
SHEET LEGEND

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
DocuSigned by: G. Wesley Webb 3ADD05E6BA648B...
3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

Vulcan Materials Company

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-18-20
PLAN: 1" = 150'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

RECLAMATION PLAN

JOB NO. 11526
SHEET NO. 8
OF: 21

MATCH LINE SHEET 8
MATCH LINE SHEET 9

MATERIAL STORAGE AREA TO BE STABILIZED WITH VEGETATION. SEE SHEET 8 FOR SEEDING SCHEDULE

ACCESS GATE TO REMAIN. EXISTING TIMBER ROAD TO BE STABILIZED WITH VEGETATION.

GOLD HILL ROAD S.R. 1603 (60' R/W)

SEE INSET A SHEET 16

N

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
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- BUILDING
- LOCATED OBJECT
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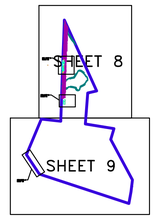


RECLAMATION PLAN SHEET LEGEND

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3AOD005E6BA648B... 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

Vulcan Materials Company

0 150 300 450

REV#1 PER CABARRUS COUNTY 3-23-21

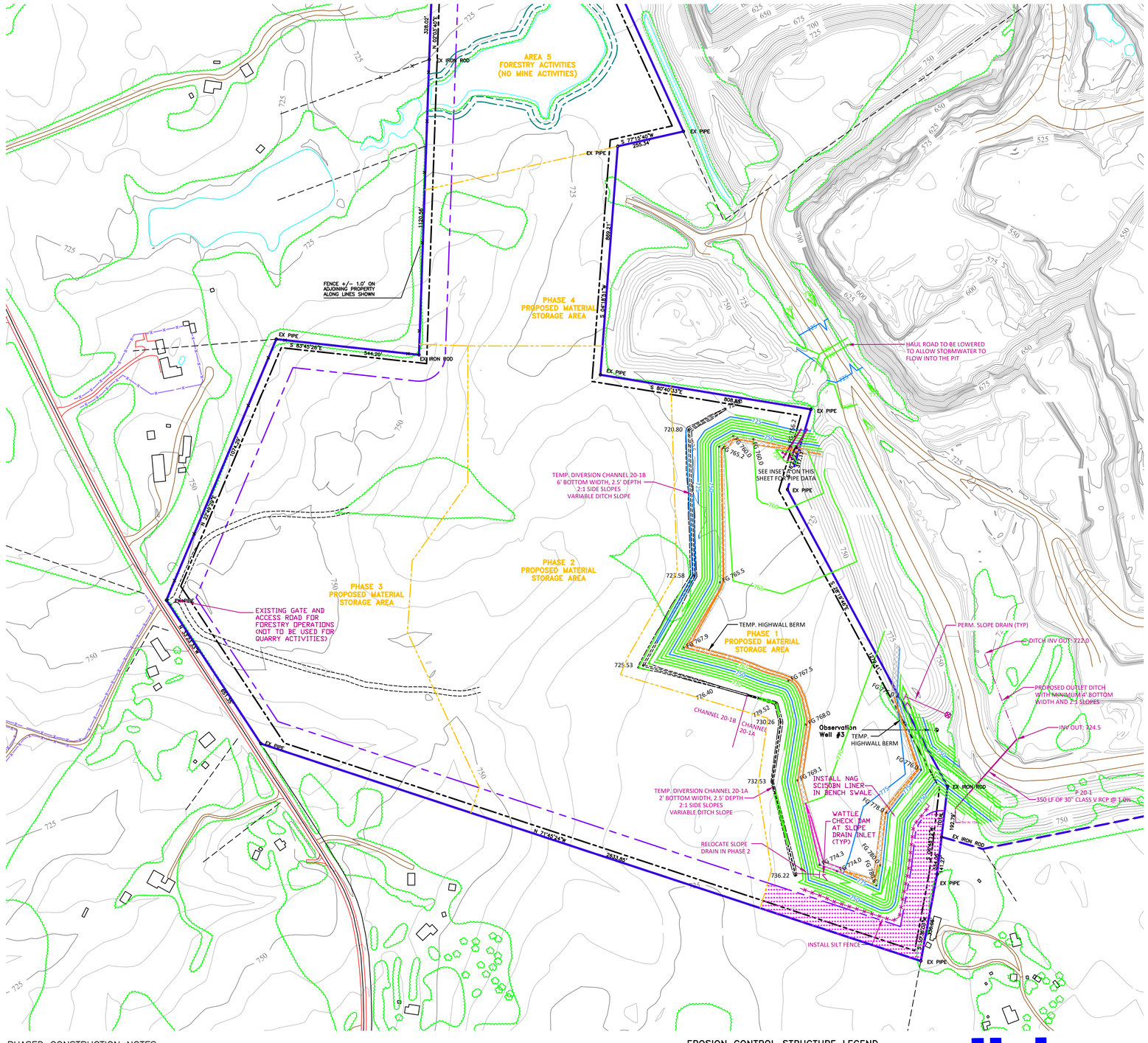
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

SCALE	
PLAN:	1" = 150'
PROFILE	
HORIZ.:	
VERT.:	
DATE:	12-18-20
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

RECLAMATION PLAN

JOB NO. 11526
SHEET NO. 9
OF: 21


AREA 5
FORESTRY ACTIVITIES
(NO MINE ACTIVITIES)
PHASE 4
PROPOSED MATERIAL
STORAGE AREA
PHASE 3
PROPOSED MATERIAL
STORAGE AREA
PHASE 2
PROPOSED MATERIAL
STORAGE AREA
PHASE 1
PROPOSED MATERIAL
STORAGE AREA
EXISTING GATE AND
ACCESS ROAD FOR
FORESTRY OPERATIONS
(NOT TO BE USED FOR
QUARRY ACTIVITIES)
FENCE +/- 1.0' ON
ADJOINING PROPERTY
ALONG LINES SHOWN
EX IRON ROD
EX PIPE
HAUL ROAD TO BE LOWERED
TO ALLOW STORMWATER TO
FLOW INTO THE PIT
SEE INSET FROM THIS
SHEET FOR PIPE DATA
TEMP. DIVERSION CHANNEL 20-1B
6' BOTTOM WIDTH, 2.5' DEPTH
2:1 SIDE SLOPES
VARIABLE DITCH SLOPE
TEMP. HIGHWALL BERM
PERM. SLOPE DRAIN (TYP)
DITCH INV OUT: 722.0
PROPOSED OUTLET DITCH
WITH MINIMUM 4' BOTTOM
WIDTH AND 2:1 SLOPES
INV OUT: 724.5
P 20-1
350 LF OF 30" CLASS V RCP @ 1.0%
CHANNEL 20-1B
CHANNEL
20-1A
Observation
Well #3
TEMP.
HIGHWALL BERM
INSTALL NAG
SC150BN LINER
IN BENCH SWALE
TEMP. DIVERSION CHANNEL 20-1A
2' BOTTOM WIDTH, 2.5' DEPTH
2:1 SIDE SLOPES
VARIABLE DITCH SLOPE
WATTLE
CHECK DAM
AT SLOPE
DRAIN INLET
(TYP)
RELOCATE SLOPE
DRAIN IN PHASE 2
INSTALL SILT FENCE
S 77°45'40"W
255.34
S 80°40'33"E
608.80
S 83°55'29"E
544.20
N 72°45'24"W
2631.85
S 16°25'52"W
1317.17
S 04°18'31"E
809.41
N 60°03'40"E
328.02
N 17°20'56"E
1120.95
N 12°49'29"E
1107.61
S 16°58'34"E
1259.41
720.80
723.58
725.53
726.40
730.26
732.53
736.22
EG 765.5
EG 767.9
EG 767.5
EG 768.0
EG 769.1
EG 774.3
EG 774.0
EG 778.0
EG 778.9
EG 780.0
EG 780.2
EG 780.4
EG 780.6
EG 780.8
EG 781.0
EG 781.2
EG 781.4
EG 781.6
EG 781.8
EG 782.0
EG 782.2
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EG 782.8
EG 783.0
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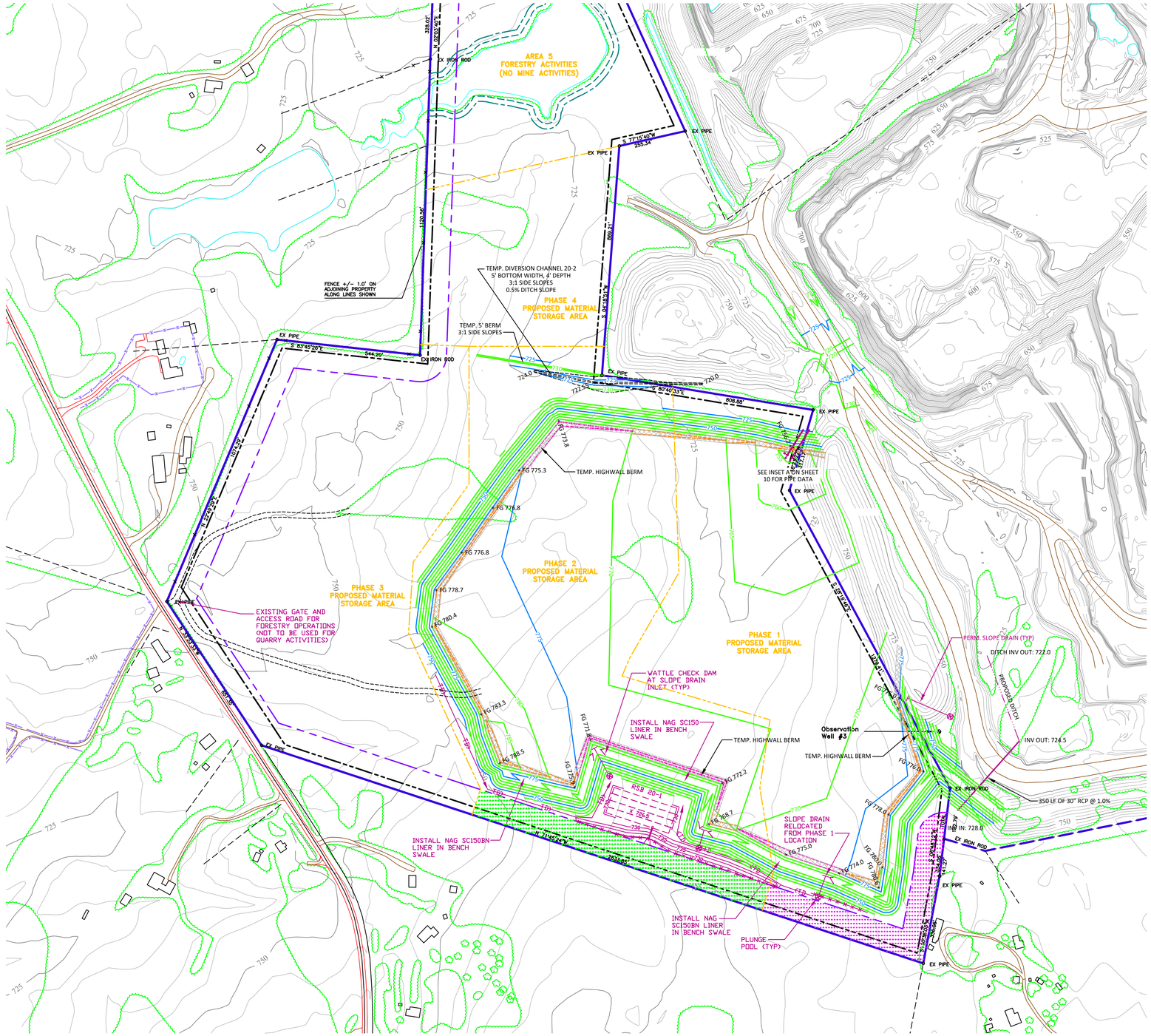
EG 783.8
EG



PHASED CONSTRUCTION NOTES:

1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1 AND PHASE 2 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 2 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

REV#1 PER CABARRUS COUNTY 3-23-21

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN — RSB
- TEMPORARY DIVERSION DITCH — TD
- SILT FENCE — SF

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

WESTERN MATERIAL STORAGE AREA - PHASE 2
CONSTRUCTION SEQUENCE

1. CLEAR ENOUGH AREA TO INSTALL THE EROSION CONTROL MEASURES IN PHASE 2.
2. INSTALL THE SILT FENCE, RSB 20-1, TEMPORARY DIVERSION CHANNEL 20-2 AND THE ADJACENT TEMPORARY BERM, AND TEMPORARY DIVERSIONS IN THE LOCATIONS SHOWN ON THE PLAN.
3. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 2 AND THE AREA WHERE DIVERSION CHANNEL 20-2
4. INSTALL DIVERSION CHANNEL 20-2B AND STABILIZE WITH A GROUNDCOVER.
5. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE SOUTHERN EDGE TO CONSTRUCT THE EXTERIOR SLOPE AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
6. BRING THE SOUTHERN EDGE OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAIN. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
7. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE SOUTHERN SLOPE AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
8. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-2 OR THE INLETS INSTALLED DURING PHASE 1.
9. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
10. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
11. INSTALL HIGH WALL BARRIERS ALONG THE TOP OF THE SLOPE AS THE FILL IS BEING PLACED.
12. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
13. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

THE TOPOGRAPHIC MAP WAS ORIGINALLY ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR — 3500
- INTERMEDIATE CONTOUR
- SPOT ELEVATION — 751.6
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER WESLEY WEBB

DocuSigned by:
W. Wesley Webb
3A0D005E6BA648B...
3-23-21

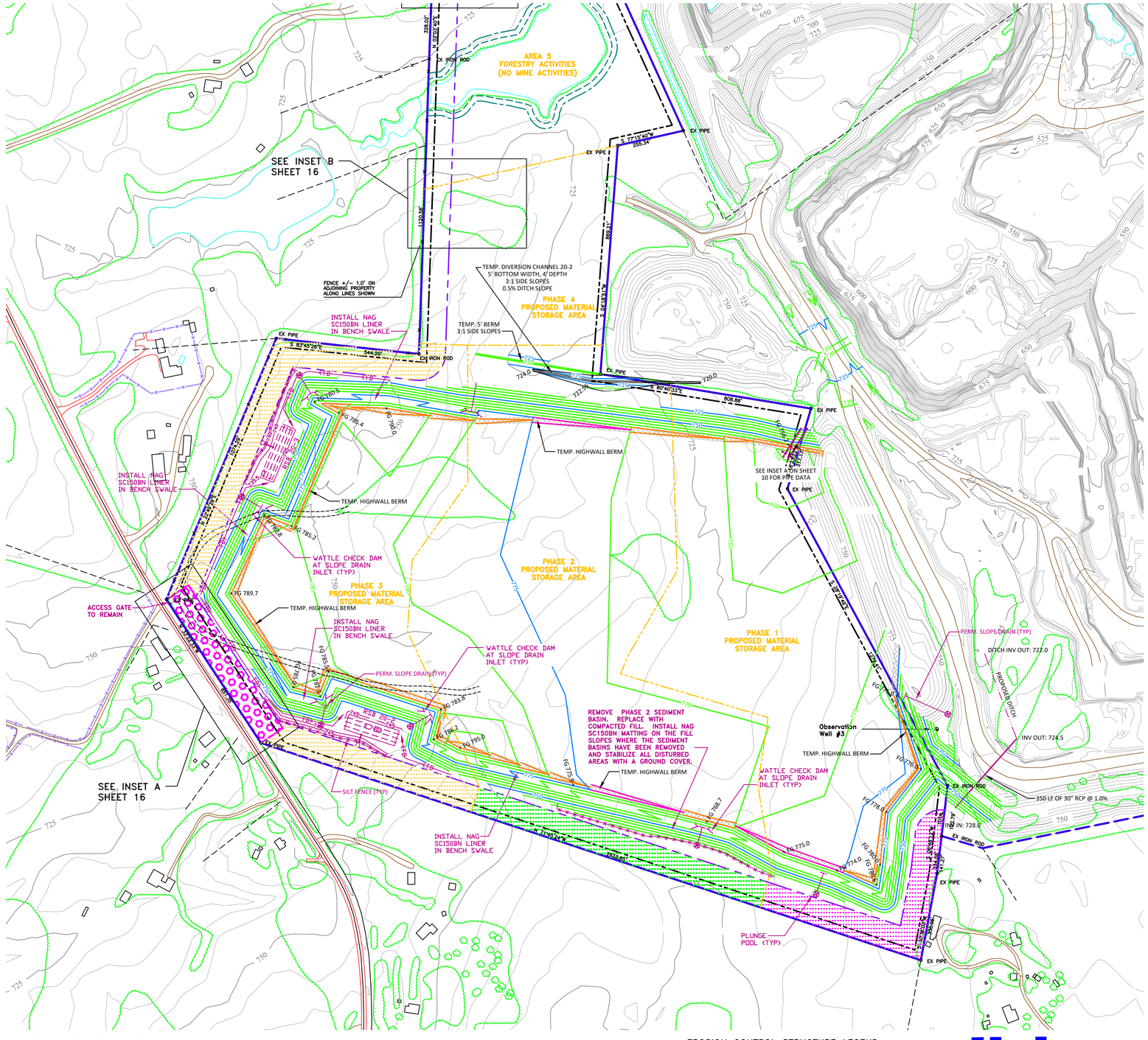
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-17-20
PLAN: 1" = 200'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 2
GRADING PLAN

JOB NO. 11526
SHEET NO. 11
OF: 21



PHASED CONSTRUCTION NOTES:

1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1, 2 AND 3 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 3 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS AND STREET YARD LANDSCAPE BUFFER HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

REV#1 PER CABARRUS COUNTY 3-23-21

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE

NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

0 200 400 600

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

WESTERN MATERIAL STORAGE AREA - PHASE 3
CONSTRUCTION SEQUENCE

1. CLEAR ENOUGH AREA TO INSTALL THE EROSION CONTROL MEASURES IN PHASE 3.
2. INSTALL THE SILT FENCE, RSB 20-2, RSB 20-3, AND TEMPORARY DIVERSIONS IN THE LOCATIONS SHOWN ON THE PLAN.
3. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 3.
4. FILL RSB 20-2 AND REMOVE THE TEMPORARY DIVERSION CHANNELS IN THIS AREA. STABILIZE THE DISTURBED AREAS WITH A GROUND COVER.
5. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE SOUTHERN AND WESTERN EDGES TO CONSTRUCT THE EXTERIOR SLOPES AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT OR RISER BASINS. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
6. BRING THE SOUTHERN AND WESTERN EDGES OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAINS. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
7. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE SOUTHERN AND WESTERN SLOPES AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
8. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-2 OR THE INLETS INSTALLED DURING PHASE 1.
9. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
10. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
11. INSTALL HIGH WALL BARRIERS ALONG THE TOP OF THE SLOPE AS THE FILL IS BEING PLACED.
12. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
13. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

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PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1, PHASE 2, PHASE 3, PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1, PHASE 2, PHASE 3, PHASE 4, AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER WESLEY WEBB

DocuSigned by: W. Wesley Webb 3-23-21
3ADC0056E6BA648B...

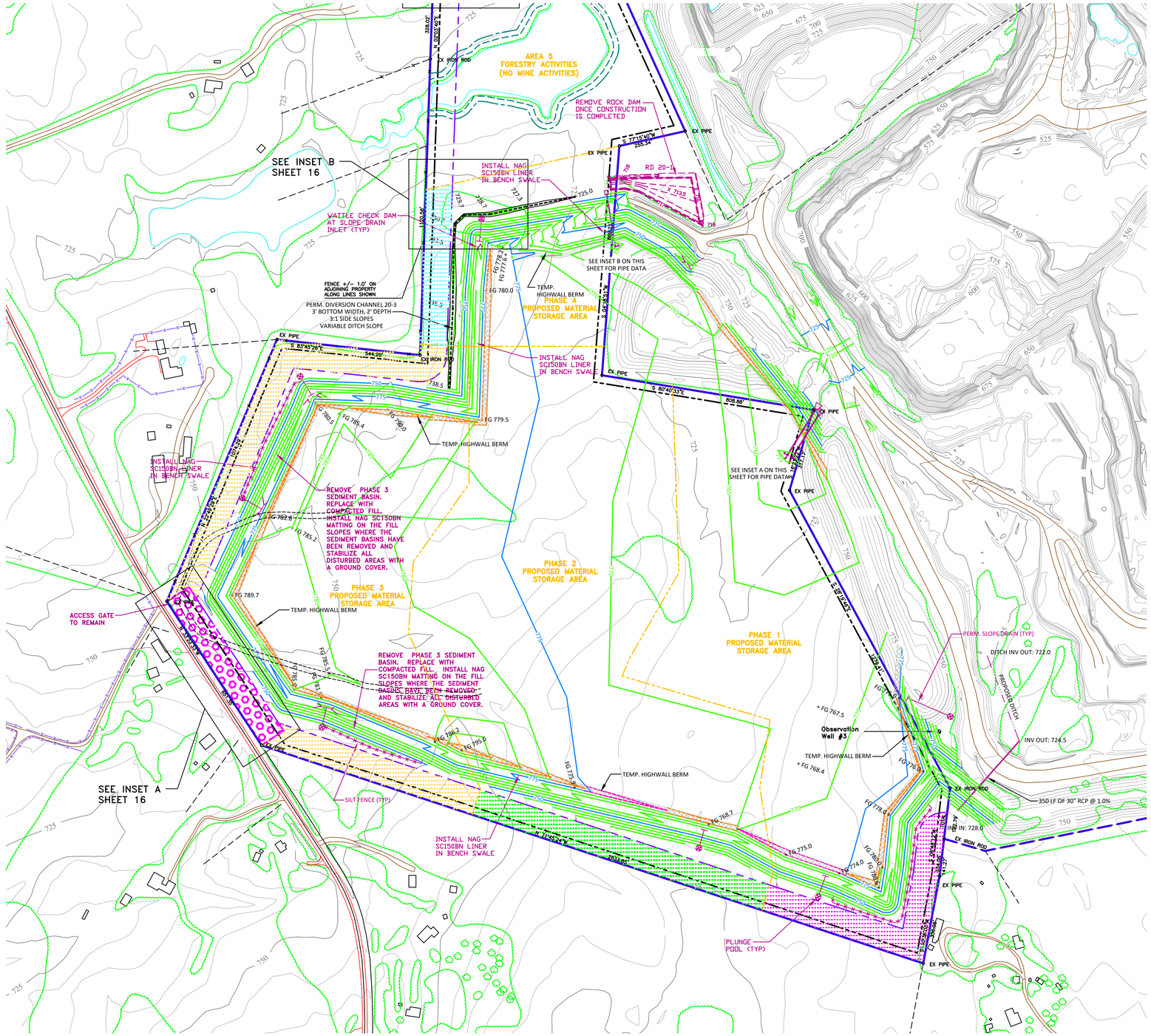
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

SCALE	DATE: 12-18-20
PLAN: 1" = 200'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 3
GRADING PLAN

JOB NO. 11526
SHEET NO. 12
OF: 21



PHASED CONSTRUCTION NOTES:

1. THE GRADING SHOWN ON THIS SHEET IS LOCATED IN PHASE 1, 2, 3 AND 4 OF THE QUARRY MATERIAL STORAGE EXPANSION AREA. MATERIAL STORAGE IN PHASE 4 SHALL NOT OCCUR UNTIL THE APPLICABLE PERIMETER LANDSCAPE BUFFERS HAVE BEEN APPROVED BY CABARRUS COUNTY PLANNING DEPARTMENT. SEE SHEET 2 FOR NOTES CONCERNING THE PROPOSED PLANTINGS. SEE NOTE NO. 4 ON SHEET 2 FOR BUFFER NOTES.

SCALE : 1" = 200'

EROSION CONTROL STRUCTURE LEGEND

- SEDIMENT BASIN
- RISER SEDIMENT BASIN (RSB)
- TEMPORARY DIVERSION DITCH (TD)
- SILT FENCE

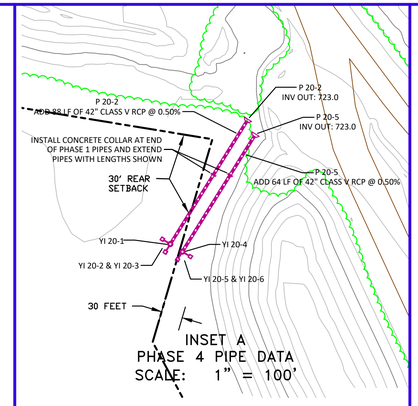
NOTE: OTHER SYMBOLS MAY BE USED TO DELINEATE EROSION CONTROL MEASURES. REFER TO SITE NOTES.

Vulcan Materials Company

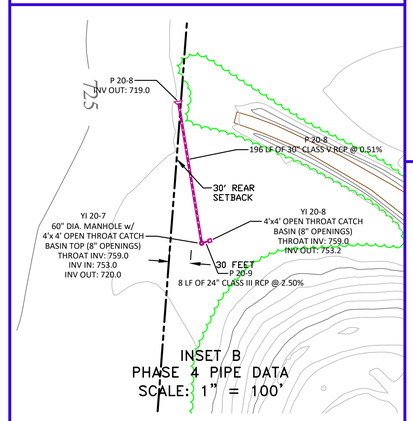
0 200 400 600

REV#1 PER CABARRUS COUNTY 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



INSET A
PHASE 4 PIPE DATA
SCALE: 1" = 100'



INSET B
PHASE 4 PIPE DATA
SCALE: 1" = 100'

WESTERN MATERIAL STORAGE AREA - PHASE 4
CONSTRUCTION SEQUENCE

1. CLEAR ENOUGH AREA TO INSTALL THE EROSION CONTROL MEASURES IN PHASE 4.
2. INSTALL ROCK DAM RD-20 AND DIVERSION CHANNEL 20-3. INSTALL A PERMANENT GROUND COVER IN DIVERSION CHANNEL 20-3.
3. CLEAR THE REST OF THE AREA WHERE MATERIAL WILL BE PLACED DURING PHASE 4.
4. INSTALL SILT FENCE BELOW THE SEDIMENT BASINS IN PHASE 3. FILL RSB 20-3 AND RSB 20-4 AND REMOVE THE TEMPORARY DIVERSION CHANNELS IN THIS AREA. STABILIZE THE DISTURBED AREAS WITH A GROUND COVER.
5. BEGIN PLACING MATERIAL IN THE STORAGE AREA. PLACE MATERIAL ALONG THE WESTERN EDGE TO CONSTRUCT THE EXTERIOR SLOPES AS SOON AS POSSIBLE. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS THE PIT. MAINTAIN A HIGHWALL BARRIER ALONG THE TOP OF SLOPES AT ALL TIMES.
6. BRING THE WESTERN EDGE OF THE MATERIAL STORAGE AREA TO GRADE AND INSTALL THE TERRACE AND SLOPE DRAINS. WATTLES ARE TO BE INSTALLED AT THE INLET OF ALL SLOPE DRAINS AND A PLUNGE POOL WILL BE INSTALLED AT THE OUTLET OF ALL SLOPE DRAINS. SEED AND STABILIZE THE EXTERIOR SLOPES BELOW THIS ELEVATION. INSTALL A NORTH AMERICAN GREEN S150BN CHANNEL LINER IN THE BENCH CHANNELS. DISTURBED AREAS IN THE STORAGE AREAS ARE TO BE DIVERTED TO DRAIN AWAY FROM THE SLOPE AND TOWARDS THE PIT AT ALL TIMES.
7. ONCE THE SLOPE ABOVE THE TERRACE HAS BEEN CONSTRUCTED, COMPLETE GRADING OF THE WESTERN SLOPE AND PROVIDE A GROUND COVER ON THE EXTERIOR SLOPES.
8. EXTEND PIPES 20-2 AND 20-5 AND BACKFILL WHILE STORAGE MATERIAL IS BEING PLACED IN THIS AREA. BRING THE AREA BETWEEN THE EXISTING STORAGE BERM AND YI 20-3 (INSTALLED IN PHASE 1) TO GRADE.
9. ONCE THE MATERIAL STORAGE PLACEMENT BEGINS IN THE NORTHERN END OF PHASE FOUR, INSTALL PIPE 20-8 AND MANHOLE YI 20-1. INSTALL THE MANHOLE IN SECTIONS AND USE THE OPEN MANHOLES FOR INLET DRAINS. INSTALL A STORAGE AREA AROUND THE INLET AND INSTALL A TEMPORARY TRASH RACK. ONCE THE AREAS SURROUNDING THE MANHOLE HAS BEEN FILLED, INSTALL ANOTHER SECTION OF THE MANHOLE RISER. SEE THE INLET SUMP DETAIL ON SHEET 8.
10. CONTINUE TO PLACE MATERIAL IN THE STORAGE AREA. ENSURE THAT ALL DISTURBED AREAS DRAIN TOWARDS DIVERSION CHANNEL 20-3, ROCK DAM RD 20-1, INLET YI 20-1 OR THE INLETS INSTALLED DURING PHASE 1.
11. AS THE MATERIAL STORAGE AREA IS BEING BROUGHT TO GRADE, INSTALL YI 20-2 AND PIPE P-9. INSTALL THE OPEN TOP CATCH BASINS INLETS ON THE MANHOLES.
12. SEED AND STABILIZE AREAS AT THEY ARE BROUGHT TO GRADE. PROVIDE A TEMPORARY GROUNDCOVER ON EXTERIOR SLOPES AND INACTIVE FILL AREAS EVERY SPRING AND FALL.
13. KEEP ALL DISTURBED AREAS DRAINING INTO THE PIT AT ALL TIMES.
14. INSTALL HIGH WALL BARRIERS ALONG THE TOP OF THE SLOPE AS THE FILL IS BEING PLACED.
15. MONITOR ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL. REMOVE ACCUMULATED SEDIMENT, AND REPAIR AND DAMAGE TO THE SEDIMENT BASINS, DIVERSION BERM, DITCHES, AND SILT FENCE.
16. ONCE THE MATERIAL STORAGE AREA HAS BEEN FILLED TO THE PHASE LIMITS, STABILIZE THE REMAINING SLOPES AND FILL AREA PER THE RECLAMATION DETAIL AND SEEDING SPECIFICATIONS.
17. ONCE STABILIZATION OF THE MATERIAL STORAGE AREA IS COMPLETED, ROCK DAM RD 20-1 MAY BE REMOVED. STABILIZE ANY DISTURBED AREAS.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

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- WATERBODY BUFFER ZONE NO BUILD BUFFER
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- PHASE 2
- PHASE 3
- PHASE 4

PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD

- PHASE 1
- PHASE 2
- PHASE 3
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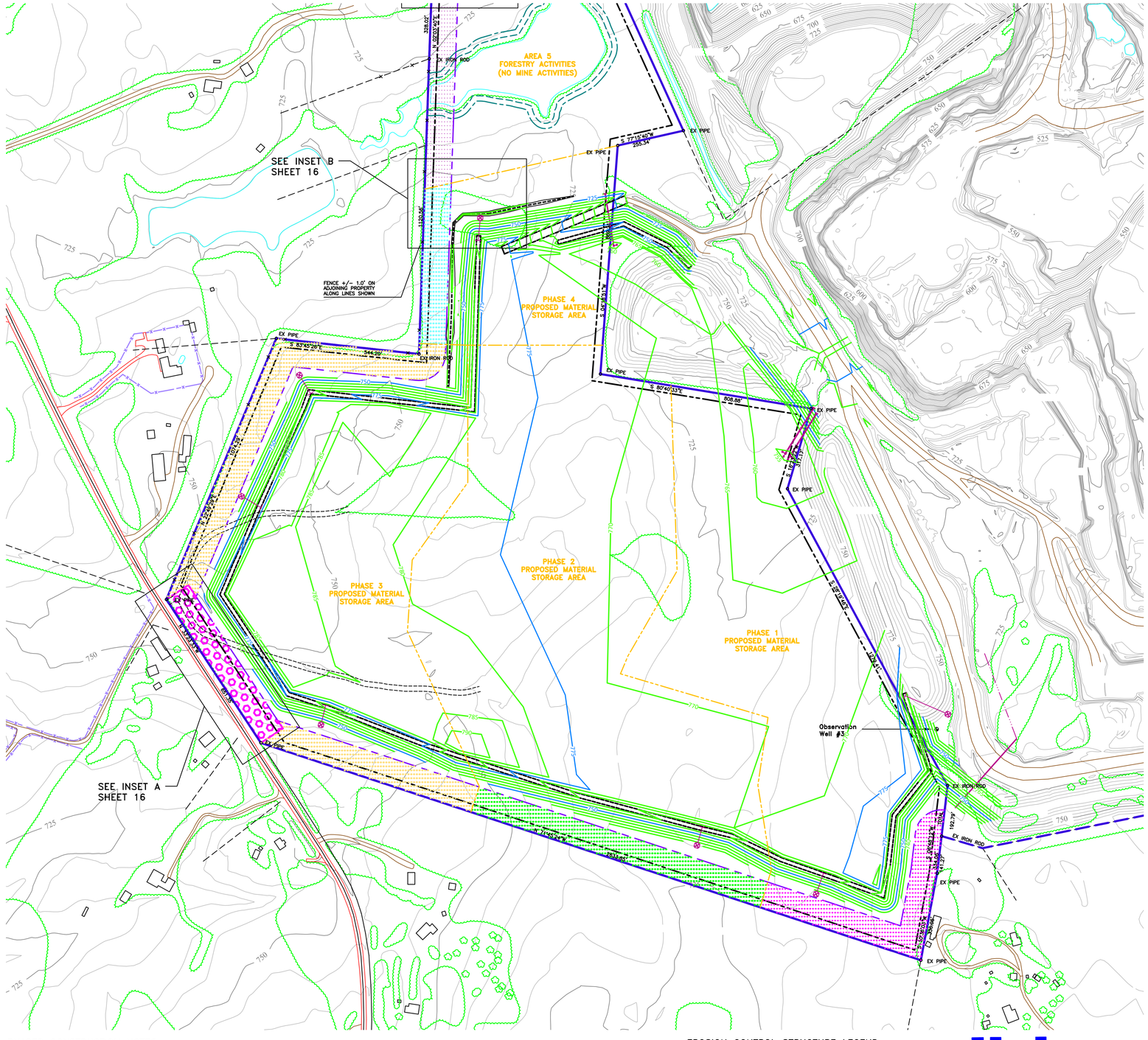
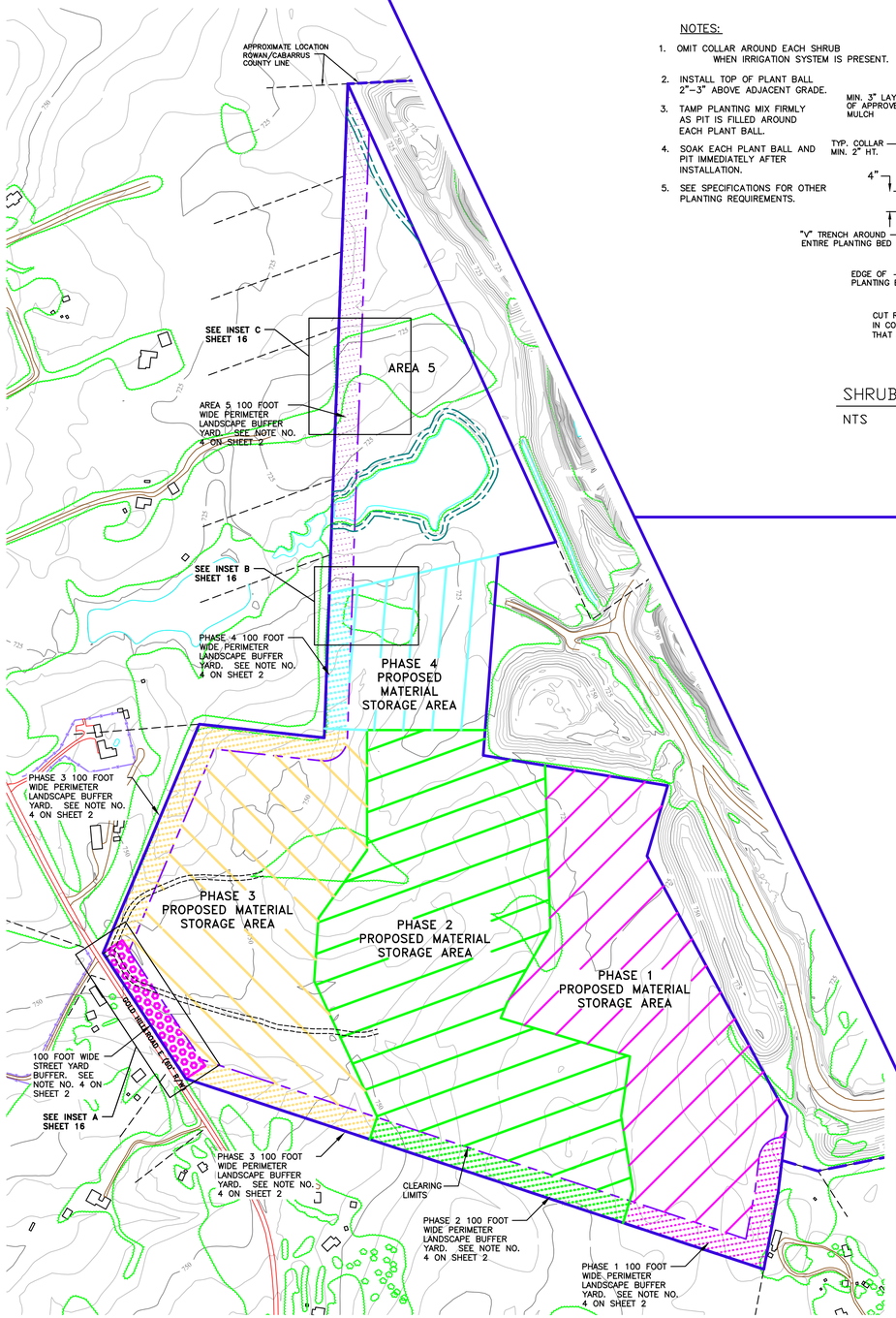
5300 GOLD HILL RD E., GOLD HILL, NC 28071

PHASE 4
GRADING PLAN

JOB NO. 11526
SHEET NO. 13
OF: 21


AREA 5
FORESTRY ACTIVITIES
(NO MINE ACTIVITIES)
SEE INSET B
SHEET 16
FENCE +/- 1.0' ON
ADJOINING PROPERTY
ALONG LINES SHOWN
PHASE 4
PROPOSED MATERIAL
STORAGE AREA
PHASE 2
PROPOSED MATERIAL
STORAGE AREA
PHASE 3
PROPOSED MATERIAL
STORAGE AREA
PHASE 1
PROPOSED MATERIAL
STORAGE AREA
SEE INSET A
SHEET 16
Observation
Well #3
EX PIPE
EX IRON ROD
N 02°03'40"E
328.02'
S 77°10'40"W
255.34'
S 83°43'28"E
544.20'
S 80°40'33"E
608.88'
S 47°19'27"E
S 39°27'48"E
1004.41'
S 39°27'48"E
192.79'
S 39°27'48"E
141.26'
S 39°27'48"E
1120.96'
S 39°27'48"E
1120.96'
S 39°27'48"E
1120.96

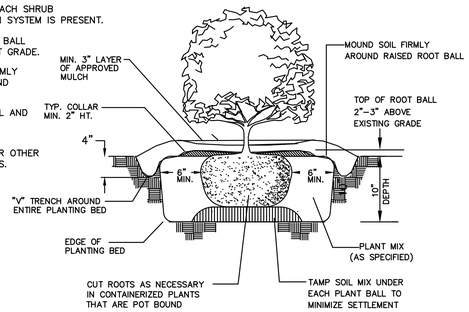


SCALE
1' = 300'

0 300 600 900

BUFFER YARD NOTES:
1. PERIMETER LANDSCAPE BUFFER YARDS AND THE STREET YARD BUFFER ARE TO BE 100 FEET WIDE AND REMAIN UNDISTURBED, EXCEPT FOR THE PLANTING OF ANY TREES OR SHRUBS REQUIRED FOR SCREENING
2. SEE NOTE NO. 4 ON SHEET TWO FOR A DESCRIPTION OF THE BUFFER REQUIREMENTS.
3. LANDSCAPE PLANTINGS AND LAYOUT DESIGNED BY JEFF YOUNG, RLA

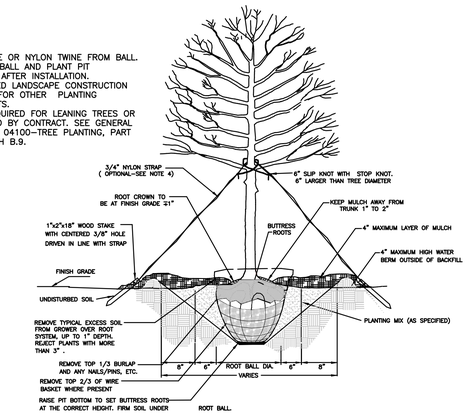
NOTES:
1. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
2. INSTALL TOP OF PLANT BALL 2"–3" ABOVE ADJACENT GRADE.
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.
5. SEE SPECIFICATIONS FOR OTHER PLANTING REQUIREMENTS.



SHRUB PLANTING DETAIL

NTS

NOTES:
1. REMOVE WIRE OR NYLON TWINE FROM BALL.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
3. SEE ATTACHED LANDSCAPE CONSTRUCTION STANDARDS FOR OTHER PLANTING REQUIREMENTS.
4. STAKING REQUIRED FOR LEANING TREES OR AS REQUIRED BY CONTRACT. SEE GENERAL NOTES: SEC. 04100–TREE PLANTING, PART 3 PARAGRAPH B.9.



ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES")

FOR EXAMPLE:	CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
	2"	12–14'	16'	24"	15"
	3"	14–16'	18'	32"	21"

TREE PLANTING

NTS

GOLD HILL QUARRY
CABARRUS COUNTY

REVEGETATION PLAN
SPRING - FALL - WINTER SEED MIXES

SPRING RATE MARCH - JUNE

Rye Grain	15 - 20 lbs. per acre
Tall Fescue	40 - 80 lbs. per acre
Switchgrass	8 lbs. per acre
Va 70 Shrub Lespedeza	20 lbs. per acre
Sericea Lespedeza	15 - 20 lbs. per acre
Dr Red Clover	8 - 14 lbs. per acre
Hulled Common Bermuda Grass	4 lbs. per acre
Dr Weeping Love Grass	2 - 4 lbs. per acre

FALL RATE (MID) AUGUST - OCTOBER

Rye Grain	40 lbs. per acre
Tall Fescue	80 lbs. per acre
Sericea Lespedeza (Unscarified)	40 lbs. per acre
Orchard Grass	30 lbs. per acre
White Clover	5 lbs. per acre

WINTER RATE NOVEMBER - FEBRUARY

Rye Grain	40 lbs. per acre
Unhulled Bermuda Grass	10 lbs. per acre
Unscarified Sericea Lespedeza	30 lbs. per acre
Tall Fescue	80 lbs. per acre

FERTILIZER ALL SEASONS

10 - 20 - 20	1500 lbs. per acre
Lime	4000 lbs. per acre
Mulch	70 bales per acre

Mulch to be anchored by one of the following methods:

1. Crimping with mulch anchoring tool; or
2. Tack with asphalt emulsion - 400 gal. per acre or
3. 1500 pounds/acre fiber mulch

PLAN MATERIAL SPECIFICATIONS

11.8.1. SIZE STANDARDS
THE MINIMUM ALLOWABLE PLANT FOR NEW INSTALLATIONS SHALL BE AS SET FORTH HEREIN. DUE TO THE VARIATIONS BETWEEN GENUS AND SPECIES, THE CALIPER OR HEIGHT NECESSARY FOR NEWLY INSTALLED PLANT MATERIALS MAY VARY. AS A GENERAL RULE, THE CALIPER OR DIAMETER OF TREES SHALL BE MEASURED 6 INCHES FROM THE GROUND LEVEL UP TO A 4 INCH CALIPER DIAMETER AND AT 12 INCHES FOR A 4 INCH CALIPER DIAMETER OR GREATER. THE HEIGHT OF SHRUBS SHALL BE A MINIMUM OF 24 INCHES AS MEASURED AT GROUND LEVEL TO THE TOP OF THE DENSEST PORTION OF THE TOP OF THE SHRUB OR HEDGE.

A. SHADE TREES
SHADE TREES SHALL MEASURE A MINIMUM 2 TO 2.5 INCH IN CALIPER AND 10 TO 12 FEET IN HEIGHT AT THE TIME OF PLANTING.

B. ORNAMENTAL TREES
ORNAMENTAL TREES SHALL MEASURE A MINIMUM 1.5 TO 2 INCHES IN CALIPER FOR SINGLE–STEM TREES OR 1 TO 1.5 INCHES IN CALIPER FOR MULTI–STEM TREES, AND 6 TO 8 FEET IN HEIGHT.

C. LARGE SHRUBS
LARGE SHRUBS, NORMALLY PLANTED FOR SCREENING, SHALL MEASURE A MINIMUM OF 3 TO 3 ½ FEET IN HEIGHT AT THE THE TIME OF PLANTING.

D. SMALL SHRUBS
SMALL SHRUBS SHALL MEASURE A MINIMUM OF 18 TO 24 INCHES IN SPREAD AND/OR HEIGHT AT THE TIME OF PLANTING. A MIX OF DECIDUOUS AND EVERGREEN SHRUBS IS ENCOURAGED IN ORDER TO OBTAIN A VARIETY OF COLOR AND TEXTURE THROUGHOUT THE YEAR.

E. GROUND COVER (ORGANIC)
ORGANIC GROUND COVERS SHALL PROVIDE 100% COVERAGE ON THE GROUND WITHIN THREE (3) YEARS FROM THE DATE OF INSTALLATION. EXCEPT FOR SEEDING, GRASS OR TURF SHALL PROVIDE 100% COVERAGE UPON INSTALLATION. ORGANIC MULCH MAY BE USED AROUND PLANTINGS TO MAINTAIN SOIL MOISTURE AND PREVENT THE GROWTH OF WEEDS.

F. GROUND COVER (INORGANIC)
INORGANIC GROUND COVERS CONSISTING OF RIVER ROCK OR SIMILAR MATERIALS MAY BE USED PROVIDED THEY DO NOT EXCEED 20% COVERAGE OF THE REQUIRED LANDSCAPE PLANTING AREA.

11.8.2. SELECTION OF PLANT MATERIALS
ALL PLANT MATERIAL EXCEPT GROUND COVERS SHALL BE SELECTED FROM TABLE 9.1–1.– ACCEPTABLE PLANT SPECIES. CONSIDERATION SHALL BE GIVEN TO THE ENVIRONMENTAL CONDITIONS OF THE SITE, SUCH AS SOIL, TOPOGRAPHY, CLIMATE, MICROCLIMATE, PATTERN OF SUN MOVEMENT, PREVAILING WINDS AND PRECIPITATION, AND AIR MOVEMENT TO ENSURE THAT PLANT MATERIALS WILL BE ESTABLISHED SUCCESSFULLY. TREE SELECTION FOR STREET YARDS OR OTHER LOCATIONS WITHIN UTILITY RIGHTS–OF–WAYS SHALL CONSIDER THE PRESSENCE OR PLANNED ADDITION OF OVERHEAD UTILITY LINES. SUCH TREES SHALL BE SMALL AND MEDIUM TREES THAT ARE PEST– AND DISEASE–RESISTANT AND ARE SLOW GROWING.

A. SUBSTITUTION OF PLANT MATERIALS
THE ADMINISTRATOR SHALL HAVE THE AUTHORITY TO APPROVE THE INSTALLATION OF COMPARABLE SUBSTITUTION PLANS MATERIALS TO SATISFY THE REQUIREMENTS OF THE APPROVED LANDSCAPE PLAN WHEN THE APPROVED PLANTS AND LANDSCAPE MATERIALS ARE NOT AVAILABLE AT THE TIME THAT INSTALLATIONS ARE TO OCCUR, OR WHEN OTHER UNFORESEEN CONDITIONS PREVENT THE USE OF THE EXACT MATERIALS SHOWN ON THE APPROVED LANDSCAPE PLAN.

B. MIX OF GENUS AND SPECIES ENCOURAGED
EXCEPT FOR THE STREET YARDS (11.7), A MIX OF GENUS AND SPECIES OF TREES, SHRUBS, GROUND COVERING, PERENNIALS AND ANNUALS IS ENCOURAGED IN ORDER TO AVOID POTENTIAL LOSS DUE TO INFECTIOUS DISEASES, BLIGHT OR INSECT INFESTATION. STREET YARD TREES SHOULD RETAIN A REASONABLY UNIFORM PATTERN ALONG BOTH SIDES OF A STREET WITHIN THE SAME BLOCK OR CORRIDER.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
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- PHASE 1 / PHASE 2 / PHASE 3 / PHASE 4 / AREA 5
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NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3AOD005E6BA548B... 3-23-21

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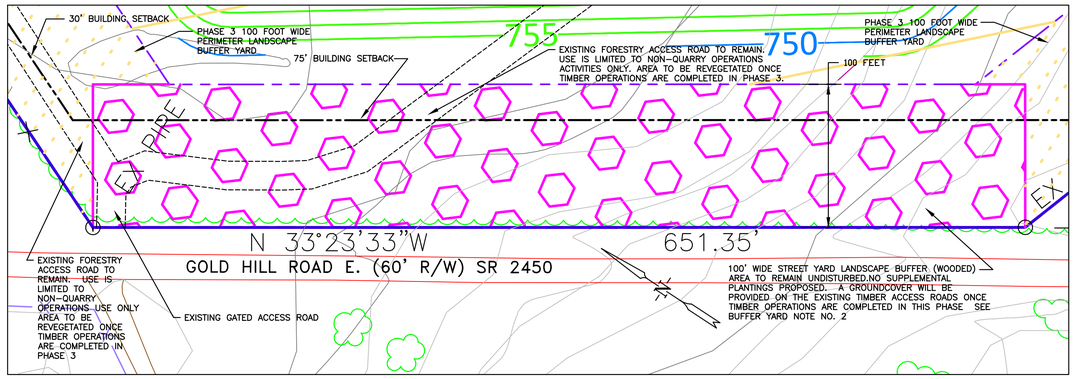
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

BUFFER PLAN

JOB NO. 11526
SHEET NO. 15
OF: 21

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG



INSET A
PHASE 3 STREETYARD
1' = 50'

Vulcan Lands, Inc. – Gold Hill – Plant List

Key	Common Name(Botanical Name)	Min. Size	Quantity
SO	Shumard Oak (Quercus shumardii)	3" cal. / 12'–14' ht. / 4'–5' spread	5
OG	October Glory Red Maple (Acer rubrum 'October Glory')	3" cal. / 14'–15' ht. / 4'–5' spread	6
HO	Holly Osmanthus (Osmanthus heterophyllus)	3 gal. container	82
WM	Southern Wax Myrtle (Myrica cerifera)	3 gal. container	83

General Notes:
1. Mulch all plant beds with pine needles, or small size pine bark to a depth of 2 to 3 inches. Mulch beds around trees in lawn areas extending to a minimum radius of 4 feet from the tree trunk. Plant beds around shrubs shall extend a minimum of 1 foot beyond the spread of the shrubs.
2. Irrigate regularly, but do not overwater.
3. Conduct soil tests to determine soil amendment needs.
4. Till all plant beds incorporating compost 6 to 8 inches deep into. Dig tree and shrub pits 2x as wide root ball.
5. Adjustment of pH may be necessary to get soil pH to around 6.5.
6. Plant beds should be built up 6" to 8" above grade.
7. Shrubs shall be 2'–6" to 3' height at planting.
8. Space, mix and arrange shrubs in a naturalistic manner to grow into a visual screen. minimum spacing between shrubs should be no less than 5'. Maximum spacing of shrubs to the next nearest shrub should be no more than 7'.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

THIS MAP MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR 1"=200', WITH A 5' CONTOUR INTERVAL, EXCLUDING AREAS MAPPED OUTSIDE OF EXSISTING GROUND CONTROL OR IN DENSE TREE AREAS.

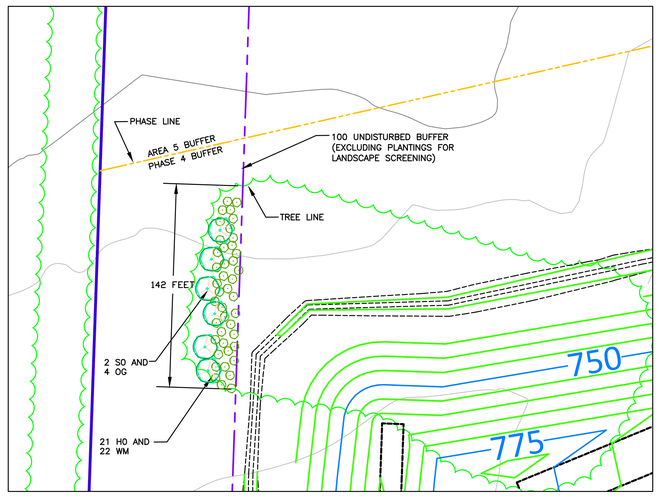
THE TOPOGRAPHIC MAP WAS ORIGINALLY ISSUED AND SEALED BY ROBERT H. TUCK, L-4122, ON 4-19-20.

PORTIONS OF THIS MAP HAVE BEEN COMPILED OUTSIDE THE LIMITS OF CONTROL AND THEREFORE DO NOT MEET THE NATIONAL MAP ACCURACY STANDARDS

HORIZONTAL DATUM: NORTH CAROLINA, NAD83, USFT
VERTICAL DATUM: NAVD88, GEOID 1999

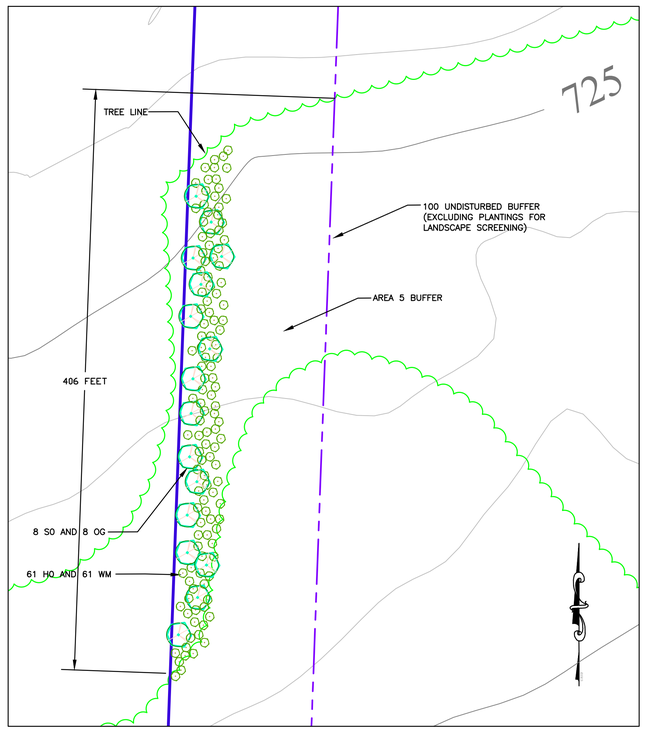
CONTOURS IN TREED AREAS ARE APPROXIMATE

COMBINED FACTOR:
Grid to Ground = 0.9998459
Ground to Grid = 1.0001541



INSET B BUFFER YARD PLANTINGS. BUFFER YARD IS 100' WIDE AND 142' LONG
SUPPLEMENTAL PLANTINGS PROPOSED
ADD 2 SHADE TREES PER 50' FOR A TOTAL OF 6 SHADE TREES
ADD 15 SHRUBS PER 50' FOR A TOTAL OF 43 SHRUBS

INSET B
PHASE 4 PLANTINGS
1' = 50'



INSET C BUFFER YARD PLANTINGS. BUFFER YARD IS 100' WIDE AND 406' LONG
SUPPLEMENTAL PLANTINGS PROPOSED
ADD 2 SHADE TREES PER 50' FOR A TOTAL OF 16 SHADE TREES
ADD 15 SHRUBS PER 50' FOR A TOTAL OF 122 SHRUBS

INSET C
AREA 5 PLANTINGS
1' = 50'

PLAN MATERIAL SPECIFICATIONS

11.8.1. SIZE STANDARDS
THE MINIMUM ALLOWABLE PLANT FOR NEW INSTALLATIONS SHALL BE AS SET FORTH HEREIN. DUE TO THE VARIATIONS BETWEEN GENUS AND SPECIES, THE CALIPER OR HEIGHT NECESSARY FOR NEWLY INSTALLED PLANT MATERIALS MAY VARY. AS A GENERAL RULE, THE CALIPER OR DIAMETER OF TREES SHALL BE MEASURED 6 INCHES FROM THE GROUND LEVEL UP TO A 4 INCH CALIPER DIAMETER AND AT 12 INCHES FOR A 4 INCH CALIPER DIAMETER OR GREATER. THE HEIGHT OF SHRUBS SHALL BE A MINIMUM OF 24 INCHES AS MEASURED AT GROUND LEVEL TO THE TOP OF THE DENSEST PORTION OF THE TOP OF THE SHRUB OR HEDGE.

A. SHADE TREES
SHADE TREES SHALL MEASURE A MINIMUM 2 TO 2.5 INCH IN CALIPER AND 10 TO 12 FEET IN HEIGHT AT THE TIME OF PLANTING.

B. ORNAMENTAL TREES
ORNAMENTAL TREES SHALL MEASURE A MINIMUM 1.5 TO 2 INCHES IN CALIPER FOR SINGLE-STEM TREES OR 1 TO 1.5 INCHES IN CALIPER FOR MULTI-STEM TREES, AND 6 TO 8 FEET IN HEIGHT.

C. LARGE SHRUBS
LARGE SHRUBS, NORMALLY PLANTED FOR SCREENING, SHALL MEASURE A MINIMUM OF 3 TO 3 ½ FEET IN HEIGHT AT THE THE TIME OF PLANTING.

D. SMALL SHRUBS
SMALL SHRUBS SHALL MEASURE A MINIMUM OF 18 TO 24 INCHES IN SPREAD AND/OR HEIGHT AT THE TIME OF PLANTING. A MIX OF DECIDUOUS AND EVERGREEN SHRUBS IS ENCOURAGED IN ORDER TO OBTAIN A VARIETY OF COLOR AND TEXTURE THROUGHOUT THE YEAR.

E. GROUND COVER (ORGANIC)
ORGANIC GROUND COVERS SHALL PROVIDE 100% COVERAGE ON THE GROUND WITHIN THREE (3) YEARS FROM THE DATE OF INSTALLATION. EXCEPT FOR SEEDING, GRASS OR TURF SHALL PROVIDE 100% COVERAGE UPON INSTALLATION. ORGANIC MULCH MAY BE USED AROUND PLANTINGS TO MAINTAIN SOIL MOISTURE AND PREVENT THE GROWTH OF WEEDS.

F. GROUND COVER (INORGANIC)
INORGANIC GROUND COVERS CONSISTING OF RIVER ROCK OR SIMILAR MATERIALS MAY BE USED PROVIDED THEY DO NOT EXCEED 20% COVERAGE OF THE REQUIRED LANDSCAPE PLANTING AREA.

11.8.2. SELECTION OF PLANT MATERIALS
ALL PLANT MATERIAL EXCEPT GROUND COVERS SHALL BE SELECTED FROM TABLE 9.1-1.- ACCEPTABLE PLANT SPECIES. CONSIDERATION SHALL BE GIVEN TO THE ENVIRONMENTAL CONDITIONS OF THE SITE, SUCH AS SOIL, TOPOGRAPHY, CLIMATE, MICROCLIMATE, PATTERN OF SUN MOVEMENT, PREVAILING WINDS AND PRECIPITATION, AND AIR MOVEMENT TO ENSURE THAT PLANT MATERIALS WILL BE ESTABLISHED SUCCESSFULLY. TREE SELECTION FOR STREET YARDS OR OTHER LOCATIONS WITHIN UTILITY RIGHTS-OF-WAYS SHALL CONSIDER THE PRESENCE OR PLANNED ADDITION OF OVERHEAD UTILITY LINES. SUCH TREES SHALL BE SMALL AND MEDIUM TREES THAT ARE PEST- AND DISEASE-RESISTANT AND ARE SLOW GROWING.

A. SUBSTITUTION OF PLANT MATERIALS
THE ADMINISTRATOR SHALL HAVE THE AUTHORITY TO APPROVE THE INSTALLATION OF COMPARABLE SUBSTITUTION PLANS MATERIALS TO SATISFY THE REQUIREMENTS OF THE APPROVED LANDSCAPE PLAN WHEN THE APPROVED PLANTS AND LANDSCAPE MATERIALS ARE NOT AVAILABLE AT THE TIME THAT INSTALLATIONS ARE TO OCCUR, OR WHEN OTHER UNFORESEEN CONDITIONS PREVENT THE USE OF THE EXACT MATERIALS SHOWN ON THE APPROVED LANDSCAPE PLAN.

B. MIX OF GENUS AND SPECIES ENCOURAGED
EXCEPT FOR THE STREET YARDS (11.7), A MIX OF GENUS AND SPECIES OF TREES, SHRUBS, GROUND COVERING, PERENNIALS AND ANNUALS IS ENCOURAGED IN ORDER TO AVOID POTENTIAL LOSS DUE TO INFECTIOUS DISEASES, BLIGHT OR INSECT INFESTATION. STREET YARD TREES SHOULD RETAIN A REASONABLY UNIFORM PATTERN ALONG BOTH SIDES OF A STREET WITHIN THE SAME BLOCK OR CORRIDER.

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PHASE 1 / PHASE 2 / PHASE 3 / PHASE 4
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1 / PHASE 2 / PHASE 3 / PHASE 4 / AREA 5
- STREET YARD LANDSCAPED BUFFER

MAPPING LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3A0D005E6BA648B...
3-23-21

BUFFER YARD NOTES:
1. PERIMETER LANDSCAPE BUFFER YARDS AND THE STREET YARD BUFFER ARE TO BE 100 FEET WIDE AND REMAIN UNDISTURBED, EXCEPT FOR THE PLANTING OF ANY TREES OR SHRUBS REQUIRED FOR SCREENING
2. SEE NOTE NO. 4 ON SHEET TWO FOR A DESCRIPTION OF THE BUFFER REQUIREMENTS.
3. LANDSCAPE PLANTINGS AND LAYOUT DESIGNED BY JEFF YOUNG, RLA

Vulcan Materials Company

0 50 100 150

DWG NO.: 11526 GOLD HILL QUARRY CABAR SHAFER REZONING.DWG

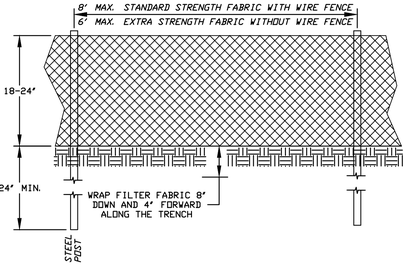
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	
DATE:	3-23-21
DRAWN BY:	RCC
CHECKED BY:	GWW
DWG No.:	

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

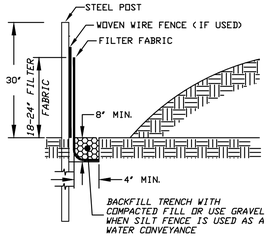
BUFFER PLAN

JOB NO. 11526
SHEET NO. 16
OF: 21

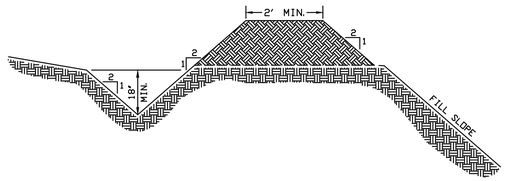


GENERAL NOTES:

1. WOVEN WIRE FENCE SHALL BE A MINIMUM OF 32" HIGH AND SHALL HAVE A MINIMUM OF 5 HORIZONTAL WIRES, VERTICAL WIRES WITH 12" SPACING, MINIMUM 10 GAUGE TOP AND BOTTOM WIRES, MINIMUM 12 1/2 GAUGE ALL OTHER WIRES.
2. FILTER FABRIC SHALL BE MIRAFI 100X FABRIC OR EQUIVALENT.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WASHED STONE SHALL BE USED TO BURY SKIRT WHEN SILT FENCE IS USED ADJACENT TO A CHANNEL, CREEK OR POND.
5. TURN SILT FENCE UP SLOPE AT ENDS.
6. REMOVE SEDIMENT WHEN 12 INCHES DEPTH OF SEDIMENT HAS ACCUMULATED.
7. PROVIDE 4' BETWEEN EACH RUN OF DOUBLE ROW SILT FENCE IN AREAS WHERE DOUBLE ROWS OF SILT FENCE WILL BE INSTALLED.

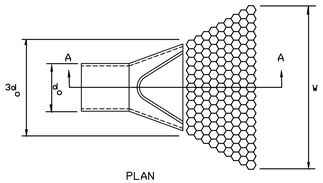


TEMPORARY SILT FENCE



TEMPORARY DIVERSION DITCH

NTS



NOTES:

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. T = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6"
3. IN A WELL DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.

SECTION A-A

OUTLET PROTECTION

CONSTRUCTION SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER FABRIC, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

Location	Pipe Size (in)	Length (ft)	Width (ft)	Use
RSB 20-1	48	21	25	18" OF CLASS I RIPRAP
RSB 20-2	30	16	18.5	18" OF CLASS I RIPRAP
RSB 20-3	30	15	17.5	18" OF CLASS I RIPRAP
P 20-2	42	23	26.5	18" OF CLASS I RIPRAP
P 20-5	42	23	26.5	18" OF CLASS I RIPRAP
P 20-8	30	14	16.5	18" OF CLASS I RIPRAP

SITE NOTES:

1. THIS PLAN DOES NOT PURPORT TO SHOWN ALL EXISTING UTILITIES, LINES, APPURTENANCES, ETC., AND THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, PIPES, VALVES, ETC., AS SHOWN ARE IN A APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES, LINES, PIPES, ETC., BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, PIPES AND VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS WITH EXISTING OR PROPOSED FACILITIES TO DETERMINE IF AN ITEM WILL NEED TO BE RELOCATED.
2. THE ENGINEER HAS MADE NO EXAMINATION TO DETERMINE WHETHER ANY HAZARDOUS OR TOXIC MATERIALS ARE PRESENT OR CONTAINED IN, UNDER OR ON THE SUBJECT PROPERTY OR ITS WATERS, OR IF ANY HAZARDOUS OR TOXIC MATERIALS HAVE CONTAMINATED THIS OR OTHER PROPERTIES OR ITS WATERS IN ANY WAY WHATSOEVER, NO SUBSURFACE EXAMINATION OF ANY TYPE HAS BEEN MADE BY THE ENGINEER, AND ACCORDINGLY, NO OPINION IS RENDERED AS TO ANY VIOLATION OF ANY ENVIRONMENTAL LAWS OR REGULATIONS, EITHER FEDERAL, STATE, OR LOCAL RELATED TO THE INFORMATION SHOWN ON THIS PLAN AND THE ENGINEER IS IN NO WAY LIABLE FOR ANY VIOLATION OF SUCH ENVIRONMENTAL LAWS SHOULD SUCH EXIST.
3. TO ENSURE PROPER LOCATION OF EXISTING UTILITIES, THE CONTRACTOR SHALL CONTACT NORTH CAROLINA 811 (1-800-632-4949), AT LEAST 48-HOURS PRIOR TO THE START OF ANY SITE EXCAVATION.
4. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY THE OWNER, HIS AGENTS, THE OWNERS REPRESENTATIVES AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE ON THE OWNER'S REPRESENTATIVE OR THE ENGINEER.
5. THE CONTRACTOR SHALL VERIFY ALL SITE ELEVATIONS, CONDITIONS AND SOIL CONDITIONS PRIOR TO CONSTRUCTION. ANY SIGNIFICANT VARIATIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

DEFINITION

A sediment control barrier formed around a storm drain inlet by the use of standard concrete block & gravel.

PURPOSE

To help prevent sediment from entering storm drains before stabilizing the contributing watershed. This practice allows early use of the storm drain system.

CONSTRUCTION SPECIFICATIONS

1 Lay one block on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. Place the bottom row of blocks against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, give lateral support to subsequent rows by placing 2X4 wood studs through block openings.

2 Carefully fit hardware cloth or comparable wire mesh with 1/2 inch openings over all block openings to hold gravel in place.

3 Use clean gravel, 3/4 to 1/2 inch in diameter, placed 2 inches below the top of the block on a 2:1 slope or flatter and smooth it to an even grade. dot #57 washed stone is recommended.

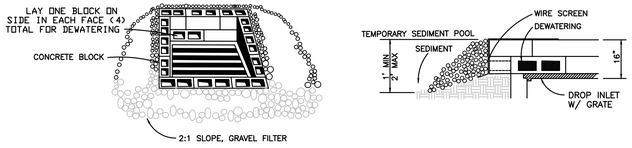
4 If only stone and gravel are used, keep the slope toward the inlet no steeper than 3:1. Leave a minimum 1 ft. wide level stone area between the structure and around the inlet to prevent gravel from entering inlet. On the slope toward the inlet, use stone 3 inches in diameter or larger. On the slope away from the inlet use 1/2 – 3/4 inch gravel (ncdot #57 washed stone) at a minimum thickness of 1 ft.

MAINTENANCE

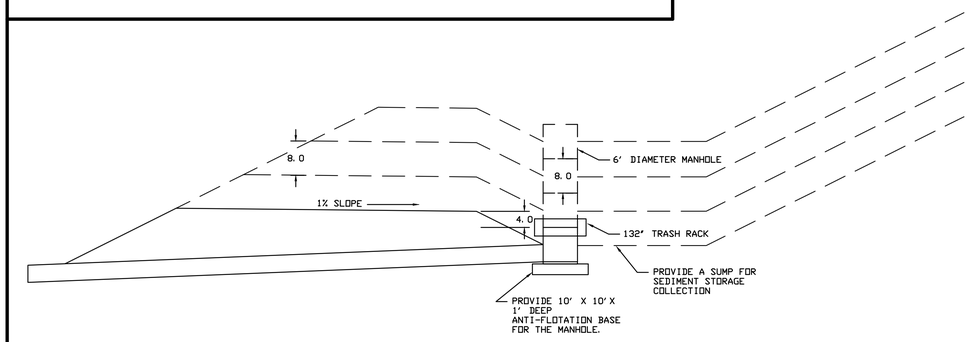
Inspect the barrier after each rain and make repairs as needed.

Remove sediment as necessary to provide adequate storage volume for subsequent rains. When the contributing drainage area has been adequately stabilized, remove all materials and any unstable soil, and either salvage or dispose of it properly.

Bring disturbed area to proper grade, then smooth and compact it. Appropriately stabilize all bare areas around the inlet.



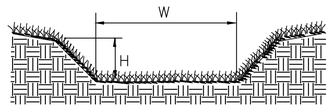
BLOCK & GRAVEL INLET PROTECTION



STAGED FILL FOR MANHOLE STRUCTURES IN HIGH FILL AREAS

NOTE: THE PURPOSE OF THIS DETAIL IS TO PROVIDE A DRAINAGE COLLECTION SYSTEM IN FILL AREAS THAT EXCEED 15 FEET OF HEIGHT.

1. INSTALL THE DISCHARGE BARREL, ANTI-FLOTATION BASE, OUTLET PROTECTION, TRASH RACK AND THE FIRST MANHOLE SECTION.
2. INSTALL BACKFILL OVER THE STORM DRAINAGE PIPE. THE HEIGHT OF THE FIRST LIFT IS A MINIMUM OF 10 FEET. THE TOP OF MANHOLE SHOULD ALWAYS BE A MINIMUM OF 4 FEET BELOW THE EDGE OF THE EXTERIOR FILL SLOPE.
3. MAINTAIN A SUMP AROUND THE TOP OF THE MANHOLE TO HELP COLLECT SEDIMENT.
4. USE TEMPORARY DIVERSIONS TO DIVERT RUNOFF TOWARDS THE MANHOLE. ONCE THE PLACEMENT OF FILL MAKES CONSTRUCTION OF TEMPORARY DIVERSIONS WITH A 1% MINIMUM SLOPE DIFFICULT, RAISE THE FILL OVER THE DISCHARGE PIPE IN 8 FOOT HIGH LIFTS.
5. REMOVE THE TRASH RACK AND INSTALL ANOTHER MANHOLE SECTION. MANHOLE JOINTS SHOULD BE WRAPPED WITH A SEALANT PRIOR TO BACKFILLING AGAINST THE STRUCTURE.
6. REINSTALL THE TRASH RACK AND PLACE COMPACTED FILL IN THE OLD SUMP.
7. CONTINUE TO PLACE FILL UPSTREAM OF THE RISER AND INSTALLING ADDITIONAL MANHOLE SECTIONS AS THE FILL HEIGHT INCREASES.
8. ONCE THE FILL HEIGHT HAS REACHED TO PROPOSED GRADE, REMOVE THE TRASH RACK AND INSTALL A MANHOLE TOP DESIGNED FOR A YARD INLET. CONSTRUCT THE YARD INLETS AND ANY ADDITIONAL DRAINAGE CONNECTIONS SHOWN ON THE PLANS.



GRASS LINED CHANNELS

CONSTRUCTION SPECIFICATIONS

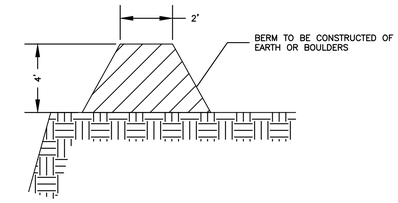
1. REMOVE ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA AND DISPOSE OF PROPERLY.
2. EXCAVATE THE CHANNEL AND SHAPE IT TO NEAT LINES AND DIMENSIONS SHOWN ON THE PLANS PLUS A 0.2-FT OVERCUT AROUND THE CHANNEL PERIMETER TO ALLOW FOR BULKING DURING SEEDBED PREPARATIONS AND SOD BUILDUP.
3. REMOVE AND PROPERLY DISPOSE OF ALL EXCESS SOIL SO THAT SURFACE WATER MAY ENTER THE CHANNEL FREELY.
4. THE PROCEDURE USED TO ESTABLISH GRASS IN THE CHANNEL WILL DEPEND UPON THE SEVERITY OF THE CONDITIONS AND SELECTION OF SPECIES. PROTECT THE CHANNEL WITH MULCH OR A TEMPORARY LINER AS NOTED ON THE PLANS TO WITHSTAND ANTICIPATED VELOCITIES DURING THE ESTABLISHMENT PERIOD.

MAINTENANCE

DURING THE ESTABLISHMENT PERIOD, CHECK GRASS-LINED CHANNELS AFTER EVERY RAINFALL. AFTER GRASS IS ESTABLISHED, PERIODICALLY CHECK THE CHANNEL; CHECK IT AFTER EVERY HEAVY RAINFALL EVENT. IMMEDIATELY MAKE REPAIRS. IT IS PARTICULARLY IMPORTANT TO CHECK THE CHANNEL OUTLET FOR BANK STABILITY AND EVIDENCE OF PIPING OR SCOUR HOLES. REMOVE ALL SIGNIFICANT SEDIMENT ACCUMULATIONS TO MAINTAIN THE DESIGNED CARRYING CAPACITY.

CHANNEL	W (ft)	H (ft)	SIDE SLOPE	TEMPORARY LINING
20-1A	2.0	2.5	2:1	NONE
20-1B	6.0	2.5	2:1	NONE
20-2	5.0	4.0	3:1	NONE
20-3	3.0	2.0	3:1	NORTH AMERICAN GREEN SC150BN

DIVERSION CHANNEL



TEMPORARY HIGHWALL BERM

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD05E6BA648B...

3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

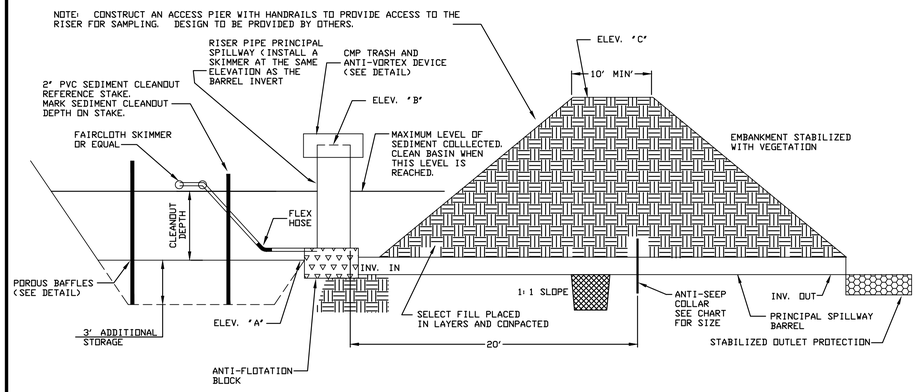
REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE
PLAN:
PROFILE
HORIZ.:
VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

JOB NO. 11526
SHEET NO. 17
OF: 21



THE BASIN MAY ALSO BE DEWATERED BY PERFORATING THE RISER WITH 1/2-INCH HOLES WITH A SPACING OF APPROXIMATELY 3 INCHES IN EACH OUTSIDE VALLEY.

TRASH GUARD - INSTALL A TRASH GUARD ON THE TOP OF THE RISER TO PREVENT TRASH AND OTHER DEBRIS FROM CLOGGING THE CONDUIT.

CONSTRUCTION SPECIFICATIONS

1. SITE PREPARATIONS - CLEAR, GRUB, AND STRIP TOPSOIL FROM AREAS UNDER THE EMBANKMENT TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. TO FACILITATE SEDIMENT CLEANOUT AND RESTORATION, CLEAR THE POOL AREA OF ALL BRUSH, TREES, AND OTHER OBJECTIONABLE MATERIALS. STOCKPILE ALL TOPSOIL OR SOIL CONTAINING ORGANIC MATTER FOR USE ON THE OUTER SHELL OF THE EMBANKMENT TO FACILITATE VEGETATIVE ESTABLISHMENT.

2. CUT-OFF TRENCH - EXCAVATE A CUT-OFF TRENCH ALONG THE CENTERLINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 2 FT DEEP. THE CUT-OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE RISER CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF EXCAVATION AND COMPACTION EQUIPMENT BUT IN NO CASE LESS THAN 2 FT. MAKE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:1. COMPACTION REQUIREMENTS ARE THE SAME AS THOSE FOR THE EMBANKMENT. KEEP THE TRENCH DRY DURING BACKFILLING AND COMPACTION OPERATIONS.

3. EMBANKMENT - THE EMBANKMENT SHOULD BE CLEAN MINERAL SOIL, FREE OF ROOTS, WOODY VEGETATION, ROCKS, AND OTHER OBJECTIONABLE MATERIAL. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING FILL. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 6 TO 8-INCH CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT IT. COMPACTION MAY BE OBTAINED BY ROUTING THE CONSTRUCTION HAULING EQUIPMENT OVER THE FILL SO THAT THE ENTIRE SURFACE OF EACH LAYER IS TRAVERSED BY AT LEAST ONE WHEEL OR TREAD TRACK OF THE HEAVY EQUIPMENT, OR A COMPACTOR MAY BE USED. CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING.

4. CONDUIT SPILLWAYS - SECURELY ATTACH THE RISER TO THE BARREL OR BARREL STUB TO MAKE A WATERTIGHT STRUCTURAL CONNECTION. SECURE ALL CONNECTIONS BETWEEN BARREL SECTIONS BY APPROVED WATERTIGHT ASSEMBLIES. PLACE THE BARREL AND RISER ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE OR ANTI-SEEP COLLARS. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. PLACE A MINIMUM DEPTH OF 2 FT OF HAND-COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. ANCHOR THE RISER IN PLACE BY CONCRETE OR OTHER SATISFACTORY MEANS TO PREVENT FLOTATION. IN NO CASE SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.

5. SKIMMER - SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER. SKIMMER HORIZONTAL MOVEMENT IS TO BE LIMITED BY METAL STAKES OR 2x4's. INSTALL SKIMMER PER MANUFACTURER'S RECOMMENDATIONS. ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURERS INSTRUCTIONS, OR AS DESIGNED. 6. LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN. THIS WILL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.

MAINTENANCE

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.

REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

BASIN NO.	FAIRCLOTH SKIMMER		
	SIZE (IN)	ORIFICE DIA. (IN)	ARM SIZE
RSB 20-1	4.0	3.5	8' x 3.0" dia.
RSB 20-2	2.5	2.5	6' x 1.5" dia.
RSB 20-3	2.5	2.0	6' x 1.5" dia.

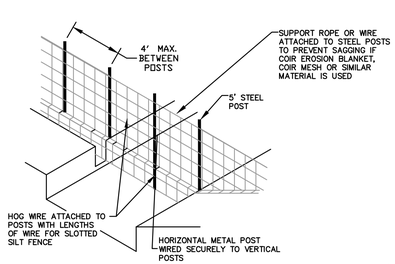
STORAGE AREA									CLEANOUT DEPTH	SEDIMENT STORAGE	SURFACE AREA
	W1	L1	D1	W2	L2	D2	W3	L3	D3	(FT3)	SQ FT
RSB 20-1	100.0	250.0	2.0	108.0	258.0	8.5	VARIES	VARIES	1.2	52,864.0	27,864.0
RSB 20-2	60.0	200.0	1.5	66.0	206.0	5.0	VARIES	VARIES	0.9	19,197.0	13,596.0
RSB 20-3	45.0	200.0	1.5	51.0	206.0	5.5	VARIES	VARIES	0.9	14,629.5	10,506.0

BASIN NO.	RISER DIA. (in)	BARREL DIA. (in)	BARREL LENGTH (ft)	BARREL INV. IN	BARREL INV. OUT	ANTI-FLOTATION BLOCK WIDTH (ft)	ANTI-FLOTATION BLOCK LENGTH (ft)	ANTI-FLOTATION BLOCK DEPTH (ft)	ELEV. "A"	ELEV. "B"	ELEV. "C"
RSB 20-1	72 (CMP)	48 (CMP)	45	726.5	726.0	10.0	10.0	2.50	726.5	732.0	735.0
RSB 20-2	42 (CMP)	30 (CMP)	32	739.5	739.0	6.0	6.0	1.50	740.0	743.0	745.0
RSB 20-3	42 (CMP)	30 (CMP)	33	735.5	735.0	6.0	6.0	1.50	735.5	739.0	741.0

L1 = BASIN LENGTH AT THE BOTTOM OF THE BASIN
W1 = BASIN WIDTH AT THE BOTTOM OF THE BASIN
L2 = BASIN LENGTH AT THE TOP OF THE SEDIMENT STORAGE
W2 = BASIN WIDTH AT TOP OF THE SEDIMENT STORAGE
L3 = BASIN LENGTH AT THE TOP OF THE EMBANKMENT
W3 = BASIN WIDTH AT THE TOP OF THE EMBANKMENT
D1 = THE DEPTH OF SEDIMENT STORAGE
D2 = THE OVERALL DEPTH OF THE SEDIMENT BASIN
D3 = THE CLEANOUT DEPTH OF THE SEDIMENT BASIN
A2 = SURFACE AREA AT THE TOP OF THE SEDIMENT STORAGE

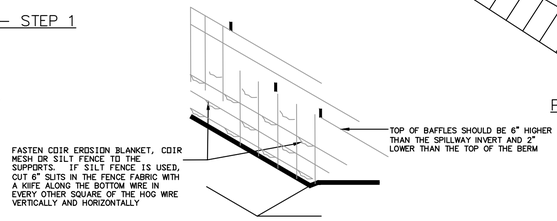
DESIGN NOTES:
1. SEDIMENT STORAGE = 1800 CUBIC FEET PER DISTURBED ACRE
2. REQUIRED SURFACE AREA = 0.01*Q10*43560
3. CLEANOUT DEPTH = 60% OF THE DESIGN STORAGE
4. SEDIMENT VOLUME CALCULATIONS ASSUME 2:1 SLOPES IN THE BASIN
5. DESIGN STORM IS 50 YEAR TO PASS THROUGH RISER/BARREL (NO EMERGENCY SPILLWAY)

RISER PIPE SEDIMENT BASIN

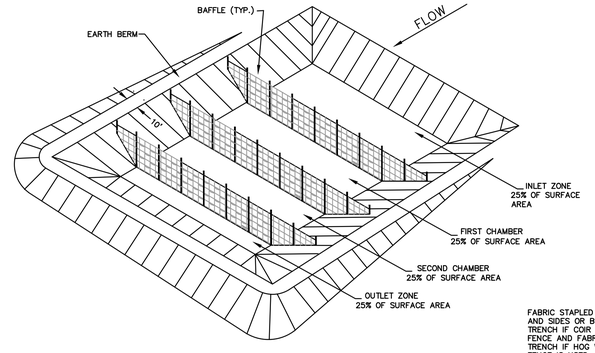


BAFFLE INSTALLATION - STEP 1

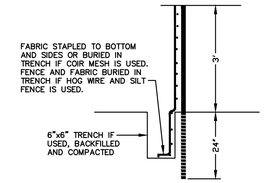
NOTES:
1. DRIVE 5' STEEL POST AT LEAST 24" INTO SOLID GROUND.
2. USE STAPLES 1' APART HORIZONTALLY AND VERTICALLY TO ATTACH THE FABRIC TO THE HOG WIRE.
3. THE FLOOR OF THE BASIN IN THE OUTLET ZONE AND BERMS SHOULD BE SEEDED IMMEDIATELY AFTER THE BASIN IS CONSTRUCTED.



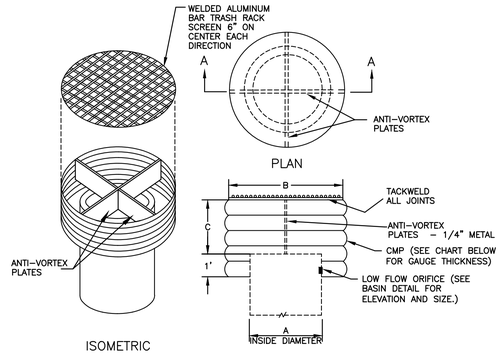
BAFFLE INSTALLATION - STEP 2



PERSPECTIVE VIEW



POROUS BAFFLES



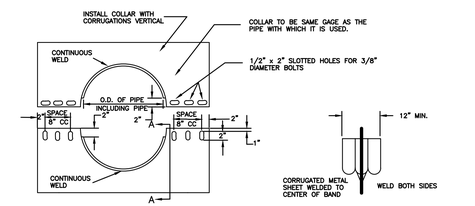
ISOMETRIC

SECTION A-A

A	B	C	GAUGE	MIN. SIZE SUPPORT BAR
72"	102"	36"	14	2" x 2" x 3/8" ANGLE
48"	72"	21"	21	1.25" x 1.25" x .25" ANGLE
42"	60"	19"	19	1.25" x 1.25" x .25" ANGLE

NOTES:
1. COORDINATE THE SIZE OF THE SAMPLING GATE WITH THE OWNER.
2. PROVIDE AN ACCESS WALKWAY WITH HANDRAILS FROM THE TOP OF DAM TO THE TOP OF THE TRASH RACK.
3. MANUFACTURER TO DESIGN AND SUBMIT SHOP DRAWINGS FOR ALL COMPONENTS OF THE ANTI-VORTEX DEVICE.

ANTI - VORTEX DEVICE



ELEVATION OF UNASSEMBLED COLLAR

SECTION A-A

BASIN NO.	LENGTH	WIDTH
RSB 12-3	9.5 FEET	9.5 FEET
RSB 12-4	6.0 FEET	6.0 FEET
RSB 12-5	6.0 FEET	6.0 FEET

NOTES FOR COLLARS:
1. ALL MATERIAL TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHED PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND THE CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER RODS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLARS

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3A0D005E68A648B...

3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE
PLAN:
PROFILE
HORIZ.:
VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
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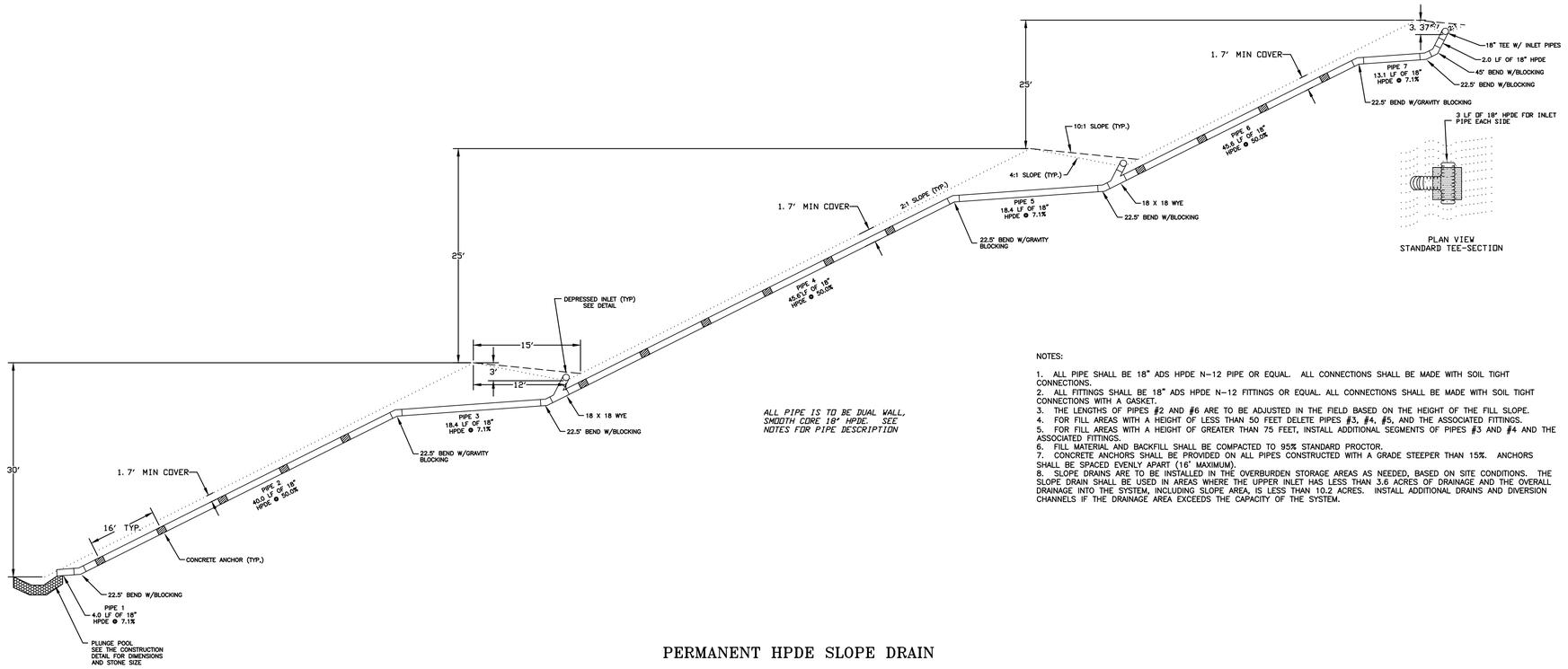
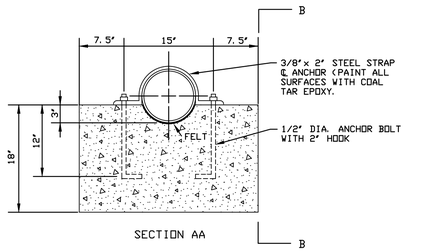


ALL PIPE IS TO BE DUAL WALL, SMOOTH CORE 18" HPDE. SEE NOTES FOR PIPE DESCRIPTION

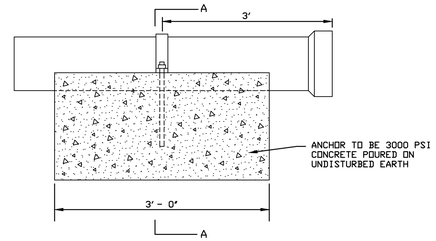
PERMANENT HPDE SLOPE DRAIN

NOTES:

1. ALL PIPE SHALL BE 18" ADS HPDE N-12 PIPE OR EQUAL. ALL CONNECTIONS SHALL BE MADE WITH SOIL TIGHT CONNECTIONS.
2. ALL FITTINGS SHALL BE 18" ADS HPDE N-12 FITTINGS OR EQUAL. ALL CONNECTIONS SHALL BE MADE WITH SOIL TIGHT CONNECTIONS WITH A GASKET.
3. THE LENGTHS OF PIPES #2 AND #6 ARE TO BE ADJUSTED IN THE FIELD BASED ON THE HEIGHT OF THE FILL SLOPE.
4. FOR FILL AREAS WITH A HEIGHT OF LESS THAN 50 FEET DELETE PIPES #3, #4, #5, AND THE ASSOCIATED FITTINGS.
5. FOR FILL AREAS WITH A HEIGHT OF GREATER THAN 75 FEET, INSTALL ADDITIONAL SEGMENTS OF PIPES #3 AND #4 AND THE ASSOCIATED FITTINGS.
6. FILL MATERIAL AND BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
7. CONCRETE ANCHORS SHALL BE PROVIDED ON ALL PIPES CONSTRUCTED WITH A GRADE STEEPER THAN 15%. ANCHORS SHALL BE SPACED EVENLY APART (16' MAXIMUM).
8. SLOPE DRAINS ARE TO BE INSTALLED IN THE OVERBURDEN STORAGE AREAS AS NEEDED, BASED ON SITE CONDITIONS. THE SLOPE DRAIN SHALL BE USED IN AREAS WHERE THE UPPER INLET HAS LESS THAN 3.6 ACRES OF DRAINAGE AND THE OVERALL DRAINAGE INTO THE SYSTEM, INCLUDING SLOPE AREA, IS LESS THAN 10.2 ACRES. INSTALL ADDITIONAL DRAINS AND DIVERSION CHANNELS IF THE DRAINAGE AREA EXCEEDS THE CAPACITY OF THE SYSTEM.

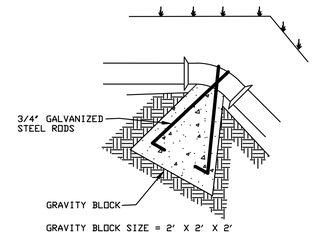


SECTION AA

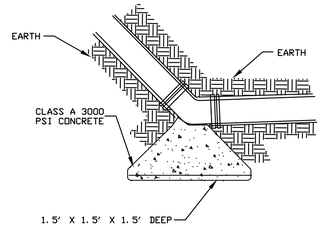


SECTION BB

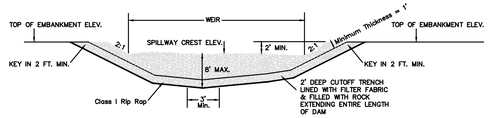
CONCRETE ANCHOR DETAIL



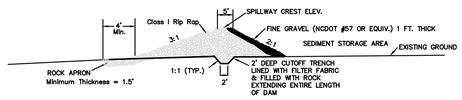
GRAVITY BLOCK SIZE = 2' X 2' X 2'



THRUST BLOCKING



Section Through Embankment at Spillway



Rock Dam

Not To Scale

SPILLWAY DIMENSIONS		
BASIN	MIN WEIR LENGTH FT	DEPTH FT
RD 12-5	40.0	3.0

NOTE THE SPILLWAY LENGTH SHOULD BE INSTALLED WITH A WIDTH AS LARGE AS POSSIBLE.

ROCK DAM	ELEVATION	SURFACE AREA (SF)	VOLUME (FT3)	STORAGE VOLUME (FT3)	NOTES
RD 20-1	713.50	24,624	0.00	0.00	BASIN FLOOR
	714.00	25,849	12,618	12,618	
	716.00	29,042	54,891	67,509	TOP OF SEDIMENT STORAGE / SPILLWAY ELEVATION
	718.00				TOP OF ROCK DAM

STORAGE AREA									CLEANOUT DEPTH	SEDIMENT STORAGE	SURFACE AREA
BASIN	W1	L1	D1	W2	L2	D2	W3	L3	D3	(FT3)	A2
RD 20-1	VARIES	VARIES	2.5	VARIES	VARIES	5.5	VARIES	VARIES	1.5	67,509.0	29,042.0

L1 = BASIN LENGTH AT THE BOTTOM OF THE BASIN
W1 = BASIN WIDTH AT THE BOTTOM OF THE BASIN
L2 = BASIN LENGTH AT THE TOP OF THE SEDIMENT STORAGE
W2 = BASIN WIDTH AT TOP OF THE SEDIMENT STORAGE
L3 = BASIN LENGTH AT THE TOP OF THE EMBANKMENT
W3 = BASIN WIDTH AT THE TOP OF THE EMBANKMENT
D1 = THE DEPTH OF SEDIMENT STORAGE
D2 = THE OVERALL DEPTH OF THE SEDIMENT BASIN
D3 = THE CLEANOUT DEPTH OF THE SEDIMENT BASIN
A2 = SURFACE AREA AT THE TOP OF THE SEDIMENT STORAGE

Profile Along Embankment at Spillway

Construction Specifications

1. Clear the areas under the embankment and strip of roots another objectionable material. Delay clearing the reservoir area until the dam is in place.
2. Cover the foundation area including the abutments with extra-strength filter fabric before backfilling with rock. If a cutoff trench is required, excavate at center line of dam, extending all the way up the earth abutments. Apply filter fabric under the rock fill embankment, from the upstream edge of the dam to the downstream edge of the apron, Overlap fill material a minimum of 1 foot at all joints, with the upstream strip laid over the downstream strip.
3. Construct the embankment with well-graded rock and gravel to the size and dimensions shown on the drawings. It is important that rock abutments be at least 2 feet higher than the spillway crest and at least 1 foot higher than the dam, all the way to the downstream toe, to prevent scour and erosion at the abutments.
4. Sediment-laden water from the construction site should be diverted into the basin reservoir at the furthest area from the dam.
5. Construct the rock dam before the basin area is cleared to minimize sediment yield from construction of the basin. Stabilize immediately all areas disturbed during the construction of the dam except the sediment pool (References: Surface Stabilization).
6. Safety – Sediment basins should be considered dangerous because they attract children. Steep side slopes should be avoided. Fences with warning signs may be needed if trespassing is likely. All state and local requirements must be followed.

Maintenance

Check sediment basins after each rainfall. Remove sediment and restore original volume when sediment accumulates to about one-half the design volume.

Check the structure for erosion, piping, and rock replacement after each significant rainstorm and repair immediately.

Remove the structure and any unstable sediment immediately after the construction site has been permanently stabilized. Smooth the basin site to blend with the surrounding area and stabilize. All water and sediment should be removed from the basin prior to dam removal. Sediment should be placed in designated disposal areas and not allowed to flow into streams or drainage ways during structure removal.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3ADD005E6BA648B... 3-23-21

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GENERAL NOTES

USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.

USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A1064 WELDED WIRE FABRIC (WWF).

FABRICATE, ASSEMBLE AND DESIGN PRECAST MANHOLE COMPONENTS ACCORDANCE WITH AASHTO M199.

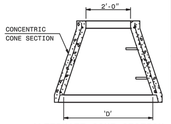
ASSEMBLE RISER AND GRADE RINGS WITH THE STEPS SPACED 12" FROM THE TOP TO THE BOTTOM OF THE MANHOLE.

WHERE THE MANHOLE IS EXPOSED TO ROAD TRAFFIC, CONSTRUCT THE TOP OF THE MANHOLE FLUSH WITH THE GROUND AND A MINIMUM OF 9" ABOVE THE GROUND AT OTHER LOCATIONS.

LIMIT DEPTH OF FILL TO 30'-0" FROM FINISH GRADE TO TOP OF BOTTOM SLAB.

THE MIN. SLAB THICKNESS 'T' IS THE DIMENSION OF THE THINNEST PORTION OF THE TOP/BOTTOM SLAB.

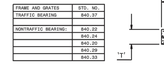
* TOP MAT OF REINFORCEMENT MAY BE NEGLECTED IF TOP SLAB HAS A DISTINGUISHABLE TOP AND BOTTOM.



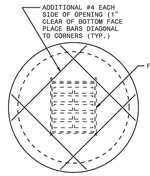
ALTERNATE CONE SECTION

D	W	T	As
INTERNAL DIAMETER (FT.)	MIN. WALL THICKNESS (IN.)	MIN. TOP/BOTTOM SLAB THICKNESS (IN.)	MIN. CIRCUMFERENTIAL AREA OF STEEL PER VERTICAL FT. (SQ. IN.)
4	4	6	0.12
5	5	8	0.15
6	6	8	0.18

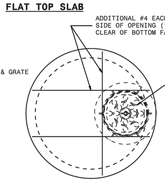
FRAME AND GRATES	STD. NO.
TRAFFIC BEARING:	840.37
NONTRAFFIC BEARING:	840.22
	840.24
	840.25
	840.28
	840.33



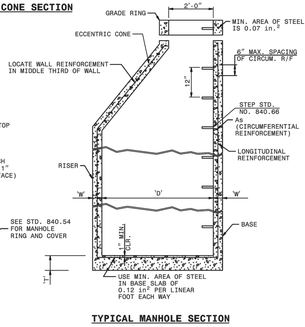
FLAT TOP SLAB



GRATED INLET OPTION



MANHOLE OPTION



TYPICAL MANHOLE SECTION

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

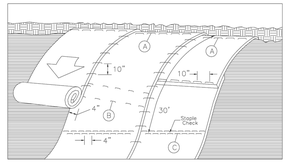
PRECAST MANHOLE 4', 5' AND 6' DIAMETER
12" THRU 48" PIPE

SHEET 1 OF 1

840.52



MATTING IN DITCHES



MATTING ON SLOPES

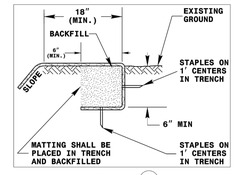


DIAGRAM (A)

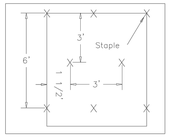


DIAGRAM (B)

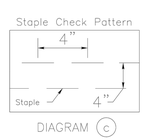


DIAGRAM (C)

NOTES

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

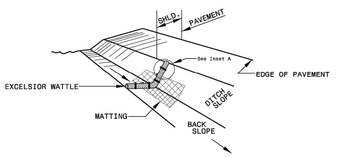
MATTING INSTALLATION

SHEET 1 OF 1

1631.01

WATTLE DETAIL

PROJECT REFERENCE NO.	SHEET NO.
I-XXXX	EC-XX
RW. SHEET NO.	
ROADWAY DESIGN ENGINEER	STORMWATER ENGINEER



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

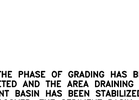
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

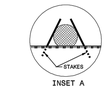
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

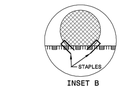
CROSS SECTION
VEE DITCH



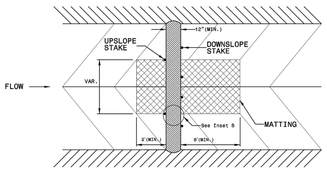
CROSS SECTION
TRAPEZOIDAL DITCH



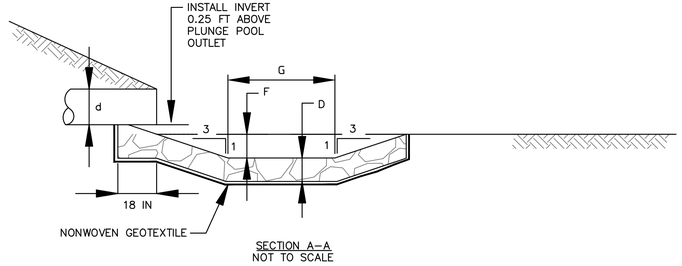
INSET A



INSET B



TOP VIEW



SECTION A–A
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. USE SPECIFIED CLASS OF RIPRAP.

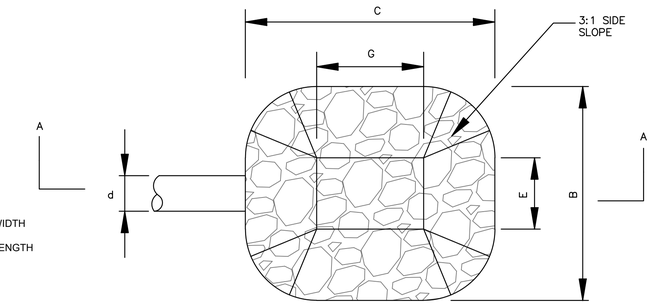
2. USE NONWOVEN GEOTEXTILE AND PROTECT FROM PUNCHING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE.

3. PREPARE THE SUBGRADE FOR THE PLUNGE POOL TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

4. STONE FOR THE PLUNGE POOL MAY BE PLACED BY EQUIPMENT. CONSTRUCT TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. DELIVER AND PLACE THE STONE FOR THE PLUNGE POOL IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE STONE FOR THE PLUNGE POOL IN A MANNER TO PREVENT DAMAGE TO THE GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.

5. AT THE PLUNGE POOL OUTLET, PLACE THE STONE SO THAT IT MEETS THE EXISTING GRADE.

6. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.



PLAN VIEW
NOT TO SCALE

LABEL	VALUE	
B	7.1 FEET	POOL WIDTH TOP
C	7.4 FEET	POOL LENGTH TOP
d	18 INCHES	SLOPE DRAIN SIZE
D50	4" (CLASS A)	STONE SIZE
D	10 INCHES	RIPRAP THICKNESS
E	0.8 FEET	BOTTOM OF POOL WIDTH
F	1.0 FEET	POOL DEPTH
G	0.9 FEET	BOTTOM OF POOL LENGTH

PLUNGE POOL

ONCE THE PHASE OF GRADING HAS BEEN COMPLETED AND THE AREA DRAINING TO THE SEDIMENT BASIN HAS BEEN STABILIZED WITH A GROUNDCOVER, THE SEDIMENT BASIN CAN BE REMOVED.

REMOVE THE RISER AND BARREL BY REMOVING THE STRUCTURE OR ABANDON THE SYSTEM IN PLACE BY FILLING WITH GROUT.

FILL IN SEDIMENT BASIN STORAGE AREA AND THE AREA ABOVE THE SEDIMENT BASIN WITH COMPACTED FILL.

THE EXTERIOR FILL SLOPE IS TO BE STABILIZED WITH A GROUND COVER USING A NORTH AMERICAN GREEN SC150BN SLOPE LINER.

SEDIMENT BASIN REMOVAL
NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3AOD005E6BA648B... 3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

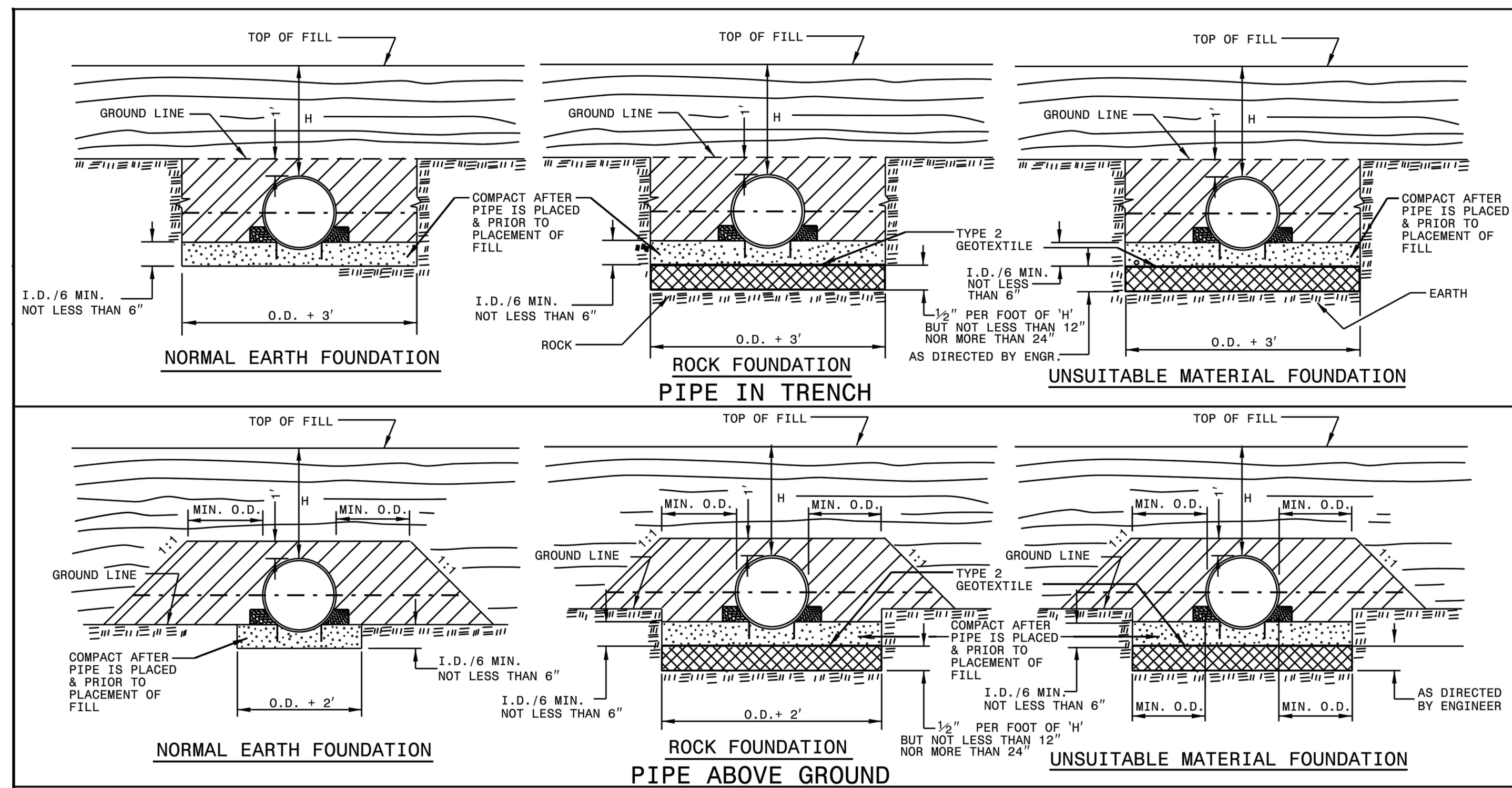
REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

SCALE
PLAN:
PROFILE
HORIZ.:
VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

JOB NO. 11526
SHEET NO. 20
OF: 21



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL.

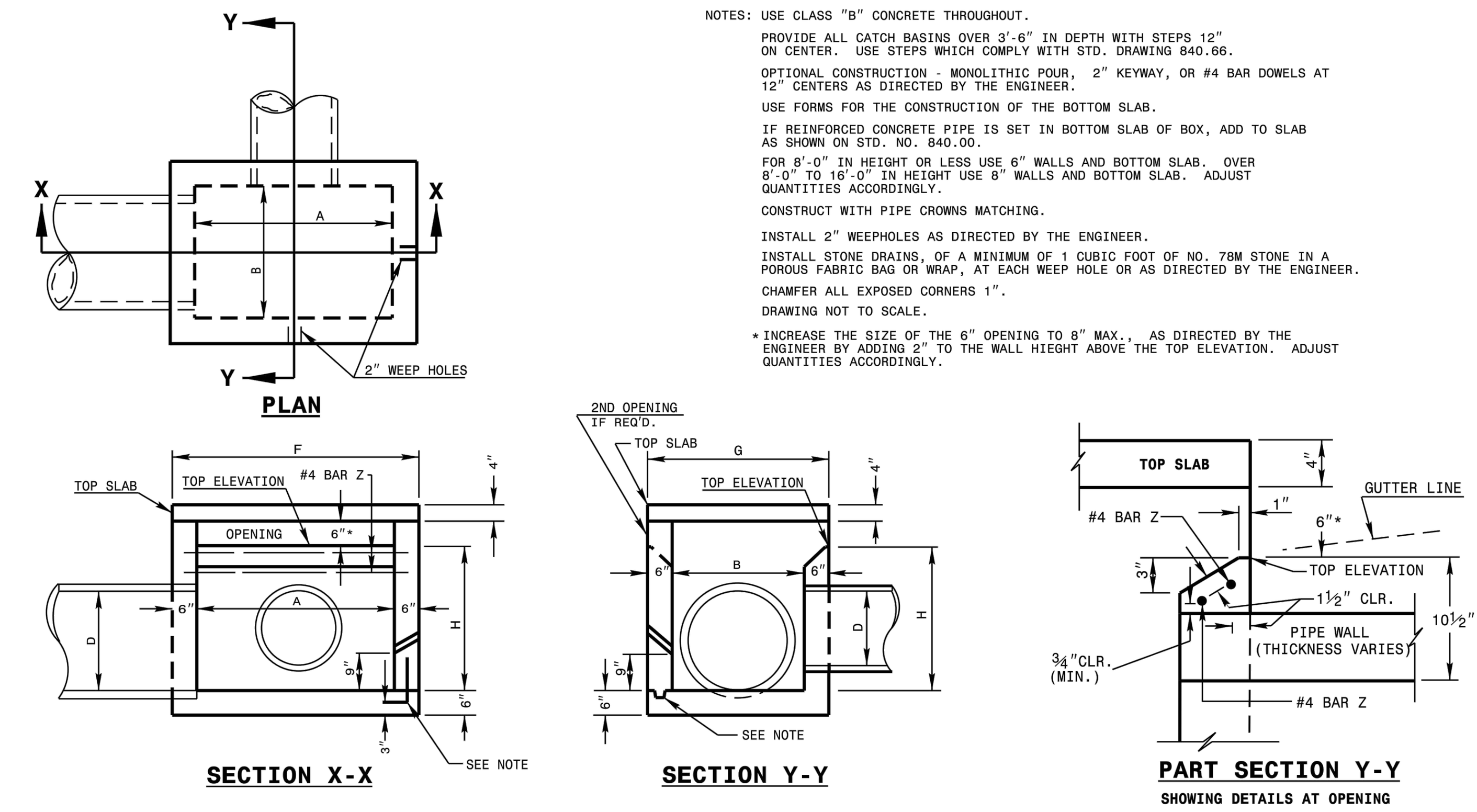
UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** FLEXIBLE PIPE

SHEET 1 OF 3 **300.01**



NOTES: USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

* INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HIEGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.

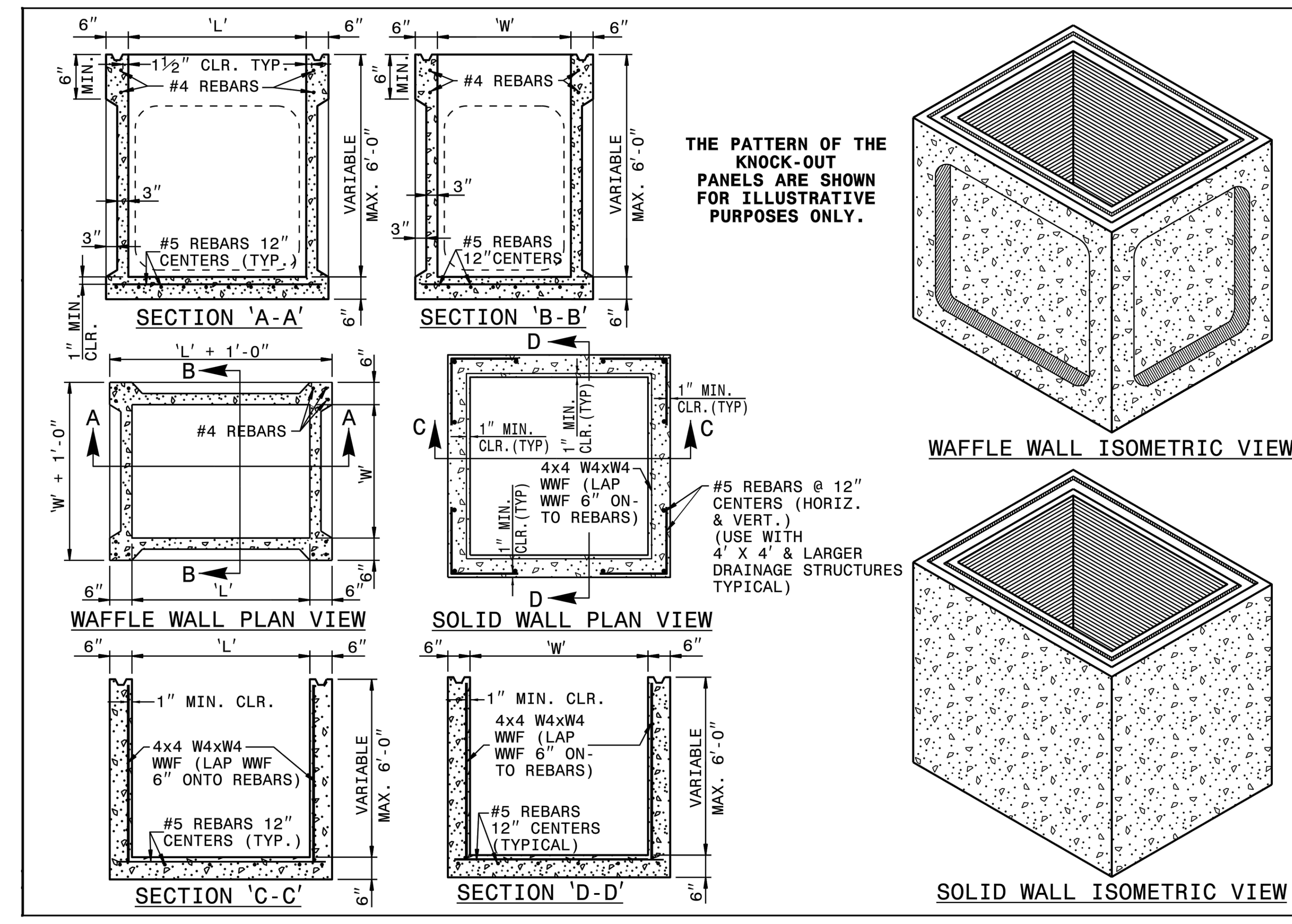
MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

DIM'S OF BOX & PIPE				REINFORCING						TOP & BOT. SLAB DIMENSIONS		CU. YDS. CONC. IN BOX			TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		DED. ONE 6" THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS - X		BARS - Y		BARS - Z											
D	A	B	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB	BOT. SLAB	WALL/FT. HT.	LBS. REINF.	YD³ (MIN H)	C.S.	R.C.	YD³
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.046	0.015	0.032	0.046
15"	3'-6"	2'-3"	2'-1"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.379	0.033	0.049	0.053
24"	4'-0"	2'-8"	2'-10"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.521	0.059	0.085	0.053
30"	4'-0"	3'-6"	3'-4"	5	4'-3"	9	4'-9"	2	4'-9"	5'-0"	4'-6"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	2	5'-3"	5'-6"	5'-0"	0.340	0.510	0.352	51	2.390	0.132	0.178	0.059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	5'-9"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **CONCRETE OPEN THROAT CATCH BASIN** 12" THRU 48" PIPE

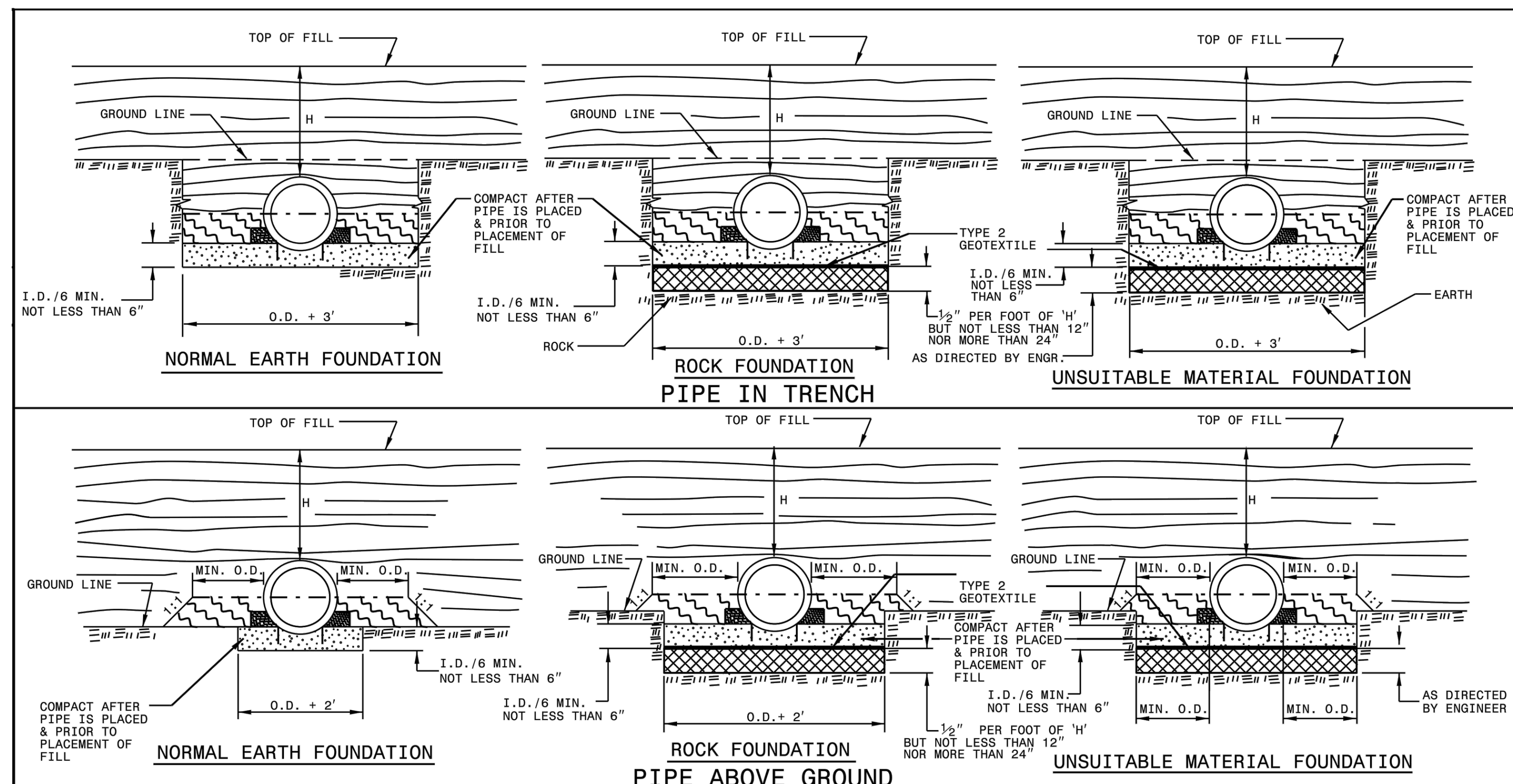
SHEET 1 OF 2 **840.04**



1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **PRECAST DRAINAGE STRUCTURE** (SOLID AND WAFFLE WALL)

SHEET 1 OF 2 **840.45**



GENERAL NOTES:

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O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.

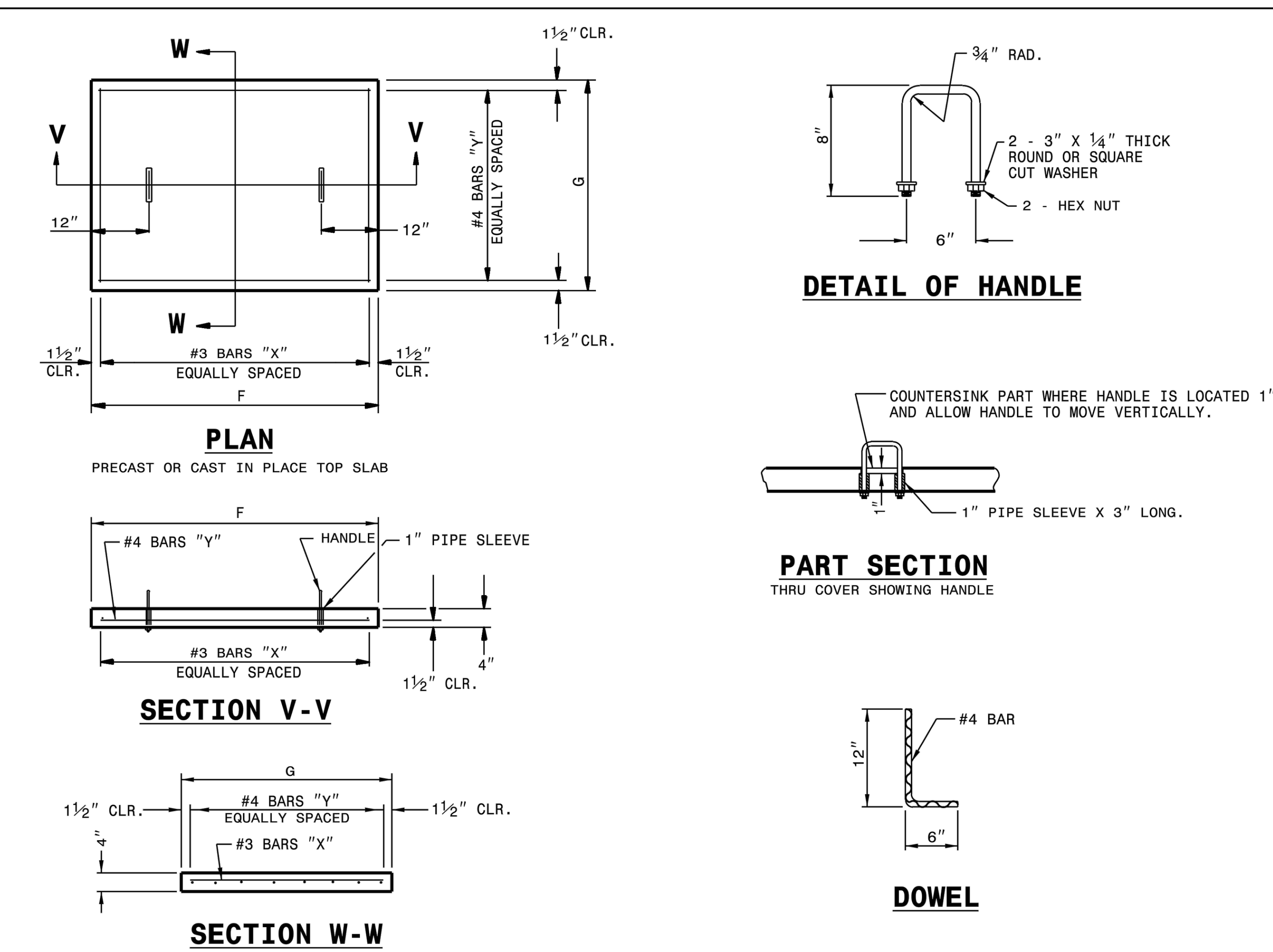
UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** RIGID PIPE

SHEET 2 OF 3 **300.01**



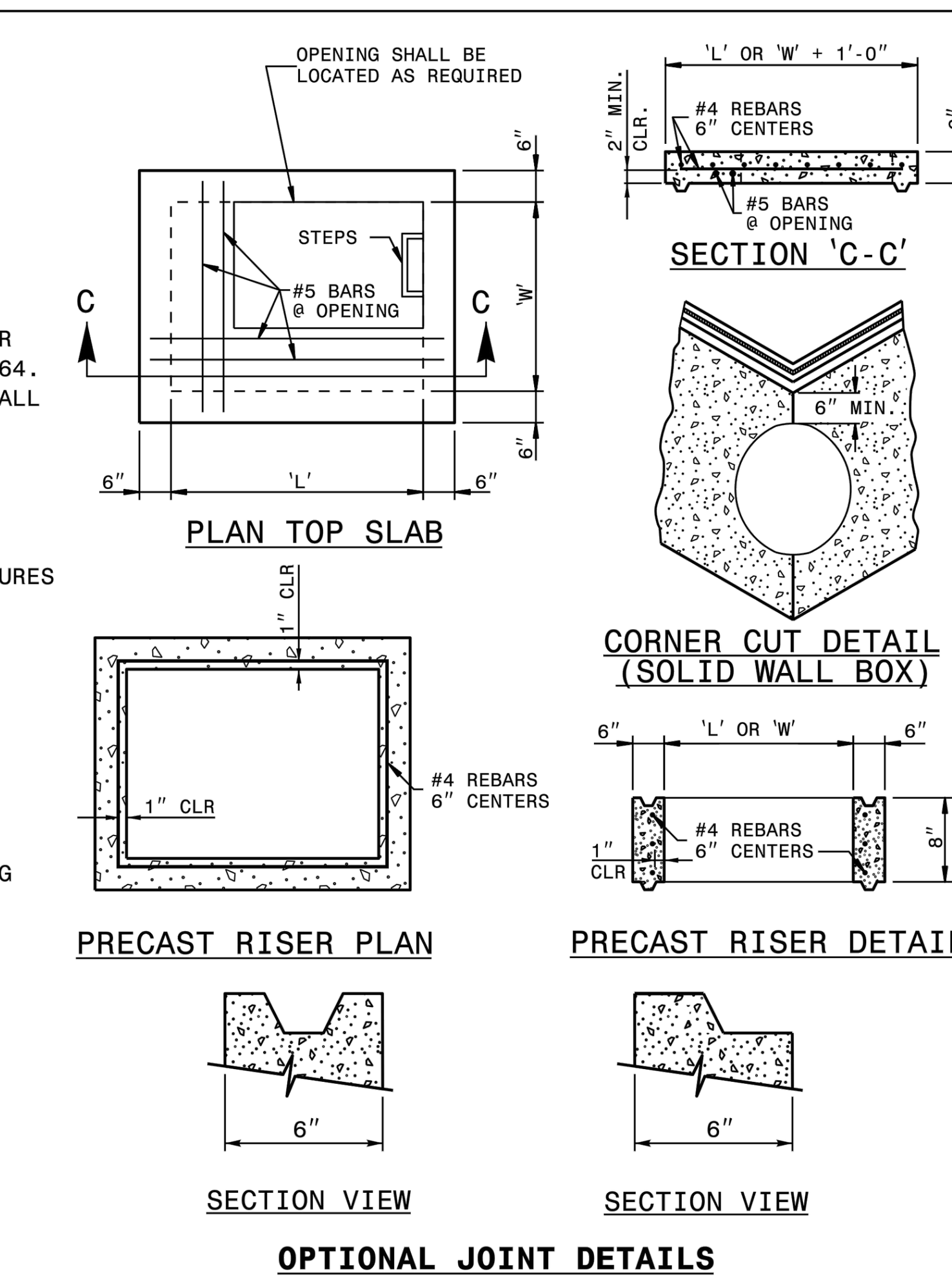
1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **CONCRETE OPEN THROAT CATCH BASIN** 12" THRU 48" PIPE

SHEET 2 OF 2 **840.04**

GENERAL NOTES:

* THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.01, 840.02, 840.04, 840.05, 840.13, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.31, 840.32 AND 840.41.
* INSTALL PRECAST DRAINAGE STRUCTURES AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 840.
* DO NOT PLACE PRECAST DRAINAGE STRUCTURES UNDER TRAFFIC OR WHERE TRAFFIC WILL BE DETOURED.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A1064.
* LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB FOR WAFFLE WALL STRUCTURE TO 10'-0"; LIMIT SOLID WALL STRUCTURE TO 15'-0".
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* CUT OR FORM OPENINGS FOR PIPE TO PROVIDE REQUIRED SIZE AND LOCATION. ORIENT WAFFLE WALL STRUCTURES SO THAT PIPES ENTER THROUGH THE KNOCKOUT/WAFFLE PANELS ONLY. PIPES MAY ENTER THROUGH THE CORNERS OF SOLID WALL BOXES IF A MINIMUM OF 6" OF WALL IS PROVIDED ABOVE THE HOLE.
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
* PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS AS DIRECTED BY THE ENGINEER.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* SEAL JOINTS WITH A FLEXIBLE BUTYL RUBBER BASE CONFORMING TO FEDERAL SPECIFICATION SS-S-21A, AASHTO M-198, TYPE B - BUTYL RUBBER.
* LIMIT MAXIMUM STRUCTURE SIZE TO INSIDE CLEAR DIMENSIONS OF 5'-0" X 5'-0".
* THE OUTSIDE PIPE DIAMETER PLUS 2" OR THE OPENING REQUIRED FOR FRAME AND GRATE IS THE MINIMUM STRUCTURE SIZE WHICHEVER IS GREATER.
* USE MANHOLE FRAME AND COVER AS INDICATED ON THE PLANS. REINFORCE OPENING AS SHOWN ON THIS SHEET.



1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **PRECAST DRAINAGE STRUCTURE** (GENERAL NOTES AND DETAILS)

SHEET 2 OF 2 **840.45**

FLEXIBLE PIPE

Round Corrugated Steel Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet) (Ga) 16	14	12	10	8
12	12	204	256			
15	12	162	204			
18	12	135	169	239		
21	12	115	145	204		
24	12	100	126	178		
30	12	79	100	142		
36	12	65	83	117	152	
42	12	55	70	100	130	160
48	12	48	61	87	113	139
54	12		54	77	100	123
60	12			69	90	111
66	12				81	100
72	12				74	91
78	12					81
84	12					69

Round Corrugated Aluminum Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet) (Ga) 16	14	12	10	8
12	12	123	155	218	281	344
15	12	98	123	174	224	275
18	12	81	102	144	187	228
21	12	69	87	123	160	195
24	12	60	76	108	139	171
27	12		67	95	123	151
30	12		60	85	111	136
36	12		50	71	92	113
42	12			60	78	96
48	12			52	68	84
54	12			46	50	74
60	12				50	62
66	12					51
72	12					41

** FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

CSP - AASHTO M36
CAAP - AASHTO M196
HDPE - AASHTO M294
PVC - ASTM F949 or AASHTO M304

HDPE - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
* (Maximum fill) 20' for pipe diameters ≤ 24"
17' for pipe diameters ≥ 30" and ≤ 60"

PVC - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
* (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

RIGID PIPE

RCP - * (Minimum fill) 1' for Class IV & CLASS V
2' for Class III & Class II

* (Maximum fill) 10' - Class II pipe
20' - Class III pipe
30' - Class IV pipe
40' - Class V pipe

(For fills > 40' & < 80' use LRFD Direct Design Method)

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

RCP - AASHTO M170

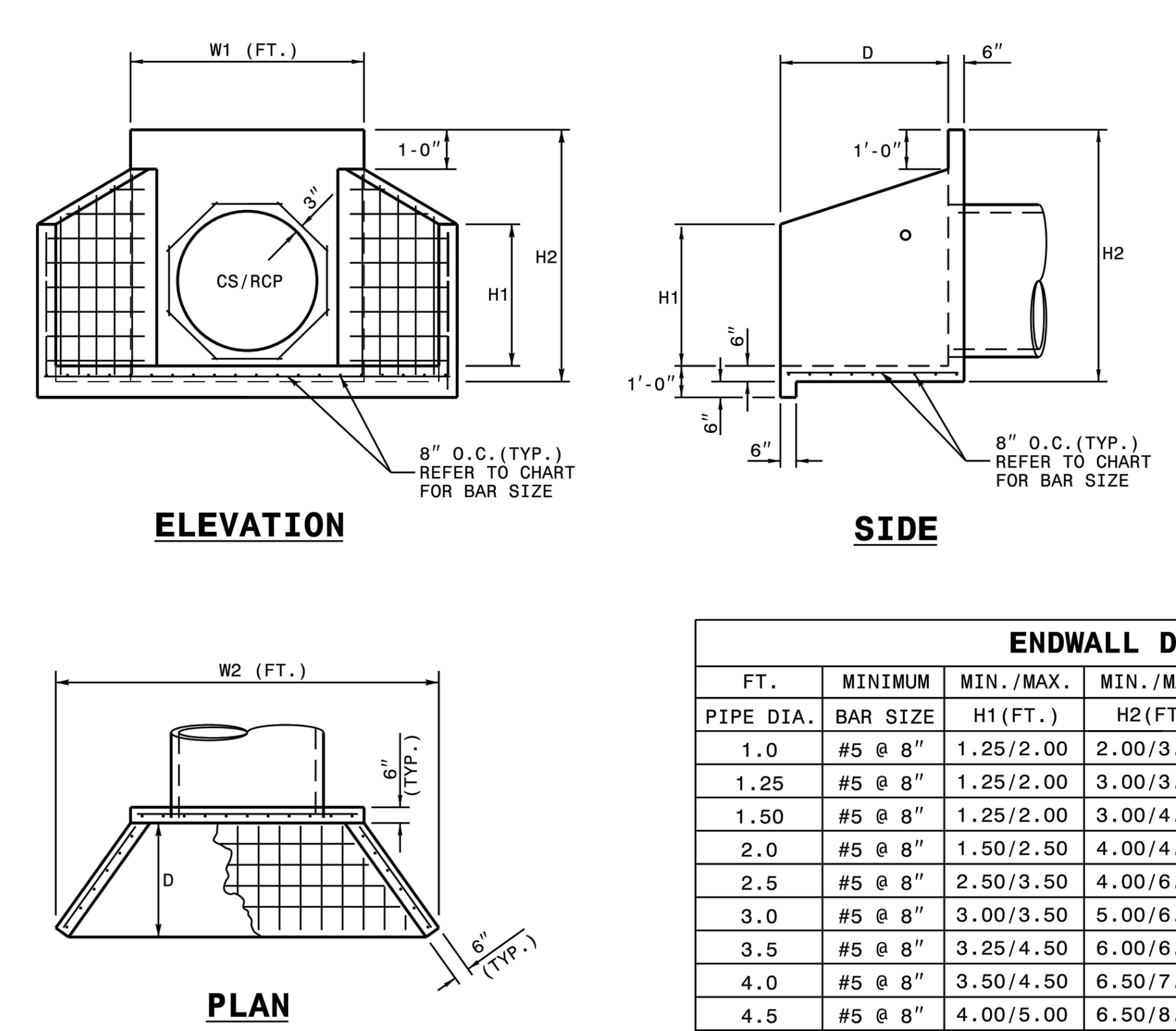
NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** FILL HEIGHT TABLES

SHEET 3 OF 3 **300.01**



NOTES:

* THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
* INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185 WITH 2" MIN. CLEARANCE.
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* PIPE TO BE GROUTED INTO HEADWALL AT JOB SITE BY CONTRACTOR
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* CHAMFER ALL CORNERS 1" OR HAVE A RADIUS OF 1".

NOTE: THE MINIMUM BAR SIZE SHALL BE #5 BARS AT 8" CTS.THE CONTRACTOR WILL HAVE THE OPTION TO INCREASE THIS BAR SIZE AS NEEDED.

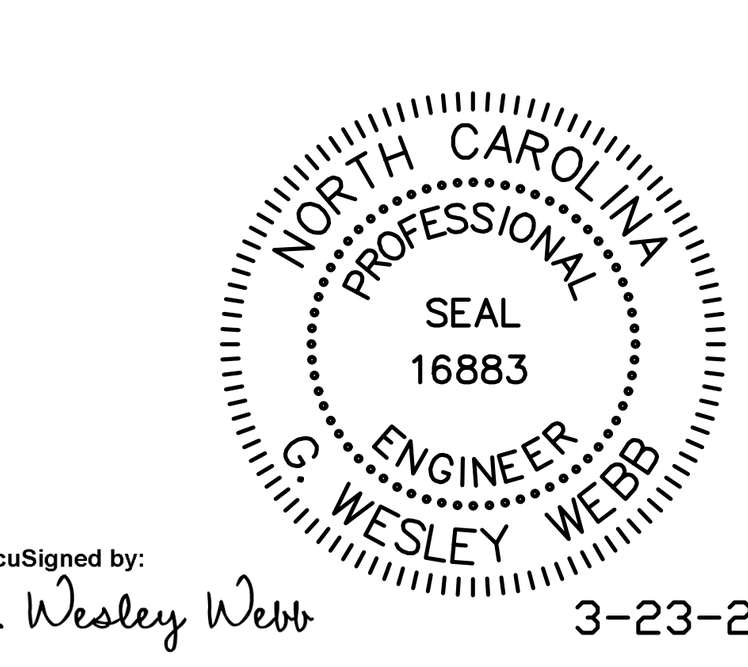
ENDWALL DIMENSIONS

FT. PIPE DIA.	MINIMUM BAR SIZE	MIN./MAX. H1(FT.)	MIN./MAX. H2(FT.)	MIN./MAX. D (FT.)	MIN./MAX. W1	MIN./MAX. W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 @ 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.50	10.00/11.50
3.0	#5 @ 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 @ 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 @ 8"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 @ 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 @ 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
6.0	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.75/9.25	14.75/16.75

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **PRECAST CONCRETE ENDWALL** FOR SINGLE 12" THRU 72" PIPE - 90° SKEW

SHEET 1 OF 1 **838.80**



DocuSigned by:
G. Wesley Webb
3A0D005E6BA648B...
3-23-21

DWG NO.: 11526 GOLD HILL QUARRY REZONING DETAILS.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE # F-0203
120 SOUTH MAIN STREET KANNAPOLIS, NC 28082
P.O. BOX 1248 704/938-1515

2020 CONDITIONAL USE REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E., GOLD HILL, NC 28071

REVISION No.	DESCRIPTION	DATE	INITIAL
1	PER CABARRUS CNTY REVIEW	3-23-21	GWW

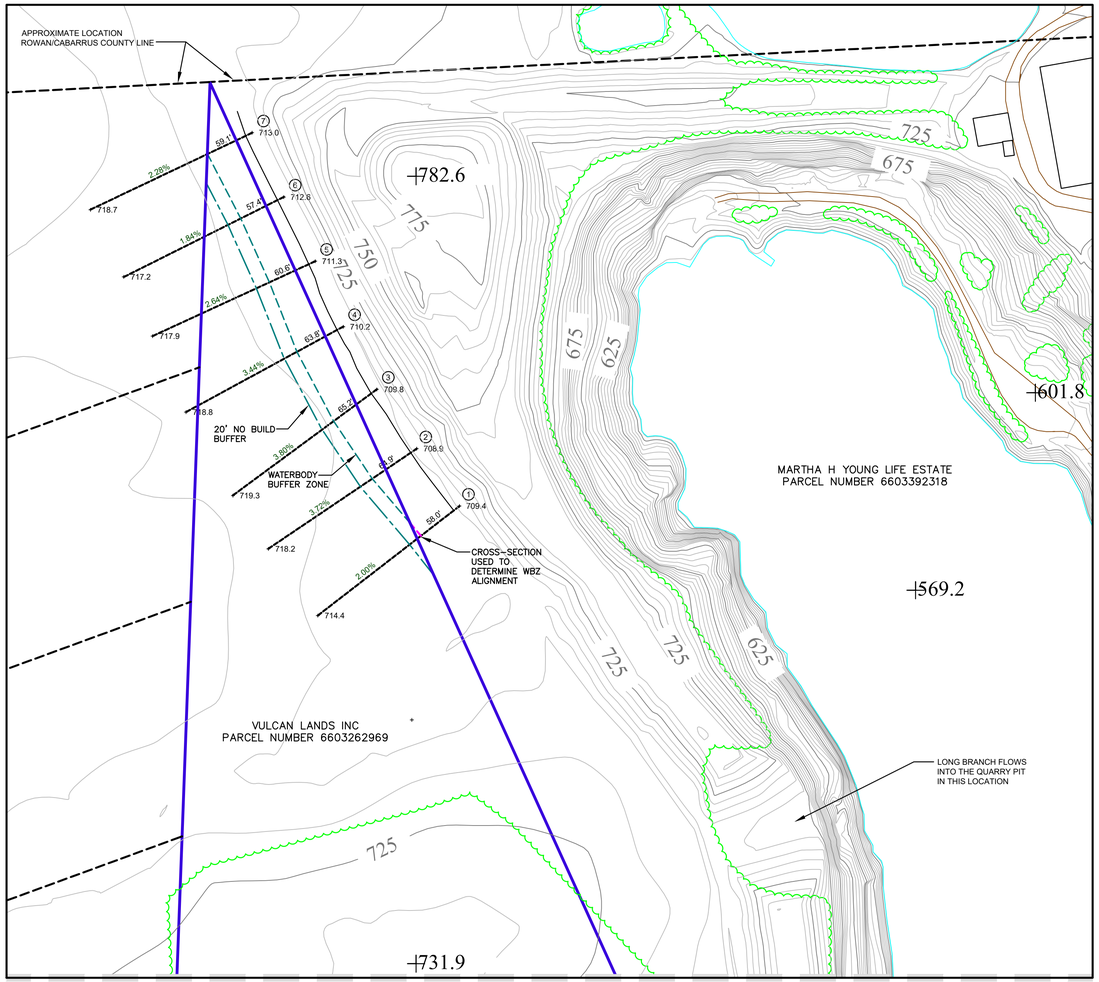
SCALE — PLAN: PROFILE — HORIZ.: VERT.:

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

CONSTRUCTION DETAILS

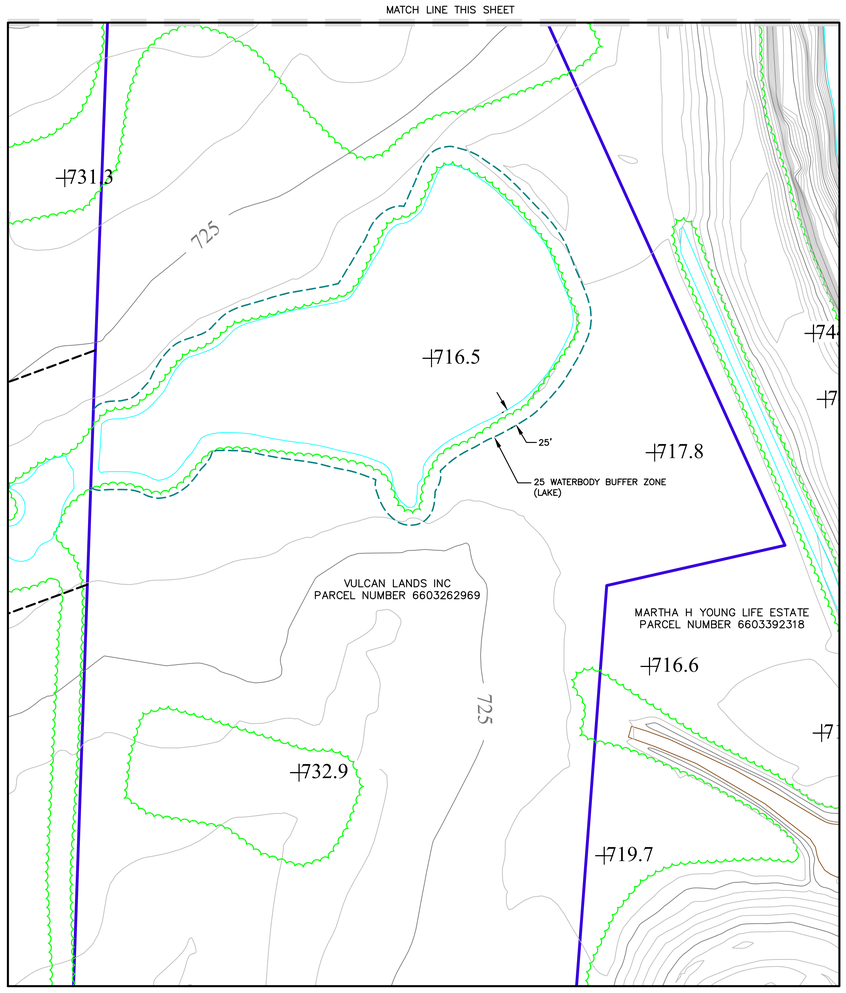
JOB NO. 11526
SHEET NO. 21
OF: 21

Exhibit D

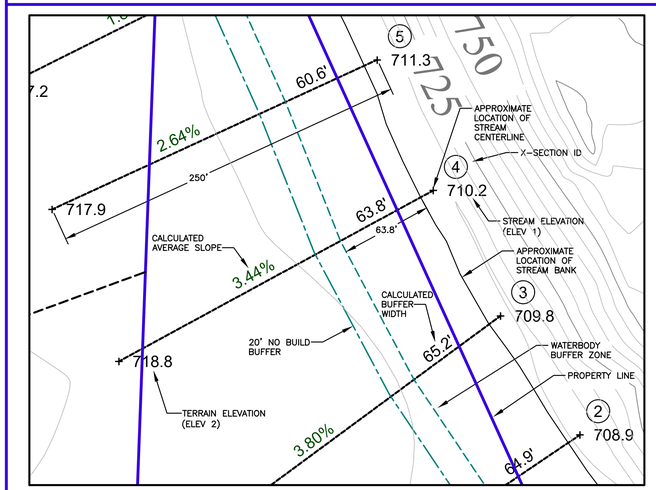


LONG BRANCH WBZ CALCULATIONS
SCALE : 1" = 100'

MATCH LINE THIS SHEET



LAKE WBZ
SCALE : 1" = 100'



METHOD OF CALCULATION
FOR STREAM BUFFERS
SCALE 1"= 50'

X-Section ID	Elev 2	Elev 1	Avg Slope (%)	Four X Avg Slope	WBZ Width (ft)
1	714.4	709.4	2.00	8.00	58.0
2	718.2	708.9	3.72	14.88	64.9
3	719.3	709.8	3.80	15.20	65.2
4	718.8	710.2	3.44	13.76	63.8
5	717.9	711.3	2.64	10.56	60.6
6	717.2	712.6	1.84	7.36	57.4
7	718.7	713.0	2.28	9.12	59.1

WATERBODY BUFFER ZONE CALCULATION NOTES:

1. THE WIDTH OF THE WATERBODY BUFFER ZONE ADJACENT TO A STREAM IS 50 FEET PLUS FOUR TIMES THE AVERAGE TERRAIN SLOPE, MEASURED BETWEEN THE STREAM CENTERLINE AND A POINT 250 FEET PERPENDICULAR FROM THE STREAM. THE BUFFER WIDTH IS MEASURED FROM THE STREAM BANK. THE MAXIMUM WIDTH IS 120 FEET.
2. THE MINIMUM BUILDING SETBACK, ALSO KNOWN AS THE NO BUILD BUFFER AREA SHALL BE AT LEAST 20 FEET FROM THE ESTABLISHED WATERBODY BUFFER.
3. AN AVERAGE STREAM WIDTH OF 20 FEET WAS USED FOR THE WATERBODY BUFFER ZONE CALCULATIONS.
4. THE LOCATION OF LONG BRANCH IS APPROXIMATE AND BASED ON AERIAL MAPPING DATA. AN AVERAGE STREAM WIDTH OF 20 FEET WAS ASSUMED FOR THE CHANNEL.
5. THE ELEVATION VALUES USED FOR THE SLOPE CALCULATIONS WERE BASED ON AN AERIAL TOPOGRAPHIC MAP PREPARED BY TUCK MAPPING SOLUTIONS, INC. DATED 3-20-20.

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.
www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

GRID

PROPERTY OWNED SURVEYED
PROPERTY OWNED NON-SURVEYED
PROPERTY LEASED SURVEYED
PROPERTY LEASED NON-SURVEYED
PROPERTY ADJOINING SURVEYED
PROPERTY ADJOINING NON-SURVEYED
3RD PARTY LEASED SURVEYED
3RD PARTY LEASED NON-SURVEYED
HORIZONTAL CONTROL POINT
VERTICAL CONTROL POINT
INDEX CONTOUR 3500
INTERMEDIATE CONTOUR
SPOT ELEVATION 751.6
WATER
PAVED ROAD
DIRT ROAD
BUILDING
LOCATED OBJECT
FENCE
TREES
PIPE
POLE
TOWER

MINE LEGEND

VULCAN LANDS PROPERTY/PERMIT LINE
VMC LEASE AREA
LEASE SURVEY LIMITS
ADJACENT PROPERTY LINE
ULTIMATE PIT LIMITS
CABARRUS CO. UNDISTURBED WATERBODY BUFFER ZONE
CABARRUS CO. (NO BUILD BUFFER) 20' MINIMUM BUILDING SETBACK

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by:
G. Wesley Webb
3ADC005E6BA6448...
3-23-21

DWG NO.: 11526 2020 Shafer WBZ Exhibit.dwg

awck
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	
PLAN:	VARIES
PROFILE	
HORIZ.:	
VERT.:	

DATE: 3-23-2021
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

2020 CONDITIONAL USE ZONING REQUEST
GOLD HILL QUARRY
VULCAN CONSTRUCTION MATERIALS
5300 GOLD HILL RD E, GOLD HILL, NC 28071

WATERBODY BUFFER ZONE EXHIBIT

JOB NO. 11526
SHEET NO. WBZ-1
OF: 1

CAROLINA STALITE COMPANY

APPROXIMATE LOCATION ROWAN/CABARRUS COUNTY LINE

PRE-1971 PIT DEVELOPMENT

DISCHARGE

SHOP

JOHN PAUL FERRANTE III AND ERIN ELIZABETH FERRANTE

JAMES L. MABRY II

GARY A. RINEHARDT AND AMY LANE RINEHARDT

AREA 5

SETTLING POND

ALLAN L. KESLER

AREA 5 PERIMETER LANDSCAPE BUFFER YARD

MARTHA H YOUNG LIFE ESTATE

JON P. JACKSON AND BARBARA E. JACKSON

PHASE 4 PERIMETER LANDSCAPE BUFFER YARD

JON P. JACKSON AND BARBARA E. JACKSON

MARTHA H. YOUNG LIFE ESTATE

PHASE 3 PERIMETER LANDSCAPE BUFFER YARD

100' CLEARING LIMITS

JON P. JACKSON AND BARBARA E. JACKSON

TIMBER ACCESS ROAD

SPARKLE PROPERTIES LLC

DARYL K. PHILEN AND KAREN A. KIEFFER

EXISTING GATE AND ACCESS ROAD FOR FORESTRY OPERATIONS (NOT TO BE USED FOR QUARRY ACTIVITIES

TIMBER ACCESS ROAD

PROPOSED WESTERN MATERIAL STORAGE AREA

BERM B

100' STREET YARD BUFFER

GOLD HILL ROAD E.

OBSERVATION WELL #3 WELL TO BE PROTECTED FROM ANY DAMAGE DURING CONSTRUCTION

350 LF OF CLASS V 30" RCP @ 1.00%

BERM

JASON H. CLINE AND REBECCA D. CLINE

DONALD F. CARPENTER

PHASE 3 PERIMETER LANDSCAPE BUFFER YARD

PHASE 2 PERIMETER LANDSCAPE BUFFER YARD

100' CLEARING LIMITS

DIONNE M. PIGGOTT

LARRY W. WHITLEY AND BARBARA P. WHITLEY

PHASE 1 PERIMETER LANDSCAPE BUFFER YARD

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

www.tuckmapping.com

DATE OF PHOTOGRAPHY : 3/20/20

GRID

MAP LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR (3500)
- INTERMEDIATE CONTOUR
- SPOT ELEVATION (751.6)
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
- FENCE
- TREES
- PIPE
- POLE
- TOWER
- WELL

MINE LEGEND

- VULCAN LANDS INC PROPERTY LINE
- ADJACENT PROPERTY LINE
- 100' UNDISTURBED CLEARING LIMITS
- CABARRUS CO. ZONING BUILDING SETBACK
- WATERBODY BUFFER ZONE BUFFER
- WATERBODY BUFFER ZONE NO BUILD BUFFER
- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

Vulcan Materials Company

0 200 400 600

SCALE 1" = 200'

PROFILE NOTES:

1. EXISTING GROUND PROFILES ARE BASED ON AERIAL PHOTOGRAPHY PREPARED BY TUCK MAPPING SOLUTIONS INC DATED 3-20-20.
2. THE PROPOSED DEVELOPMENT CONDITIONS ARE BASED ON THE SITE PLAN DRAWINGS PREPARED BY ALLEY WILLIAMS CARMEN & KING DATED 7-10-20.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

3-23-21

DocuSigned by: G. Wesley Webb 3A0D005E6BA648B...

R2. 3-22-21 ADDED AREA 5 BUFFER YARD & WBZ LINES
R1. 12-26-20 REVISED BUFFER HATCHES AND MAP LABELING
DWG NO.: 11526 VULCAN LANDS CU ZONING PROFILE EXHIBIT.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-17-20
PLAN: 1" = 200'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E,, GOLD HILL NC 28071

STREET YARD AND PERIMETER BUFFER YARD PROFILES

JOB NO. 11526

SHEET NO. 1

OF: 4

COMPILED BY:

tuck MAPPING SOLUTIONS, INC.

www.tuckmapping.com

DATE OF PHOTOGRAPHY :
3/20/20

GRID

MAP LEGEND

- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- INDEX CONTOUR — 3500
- INTERMEDIATE CONTOUR
- SPOT ELEVATION — 751.6
- WATER
- PAVED ROAD
- DIRT ROAD
- BUILDING
- LOCATED OBJECT
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- TOWER
- WELL

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- PROPOSED 100' PERIMETER LANDSCAPE BUFFER YARD
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- AREA 5
- STREET YARD LANDSCAPED BUFFER

Vulcan
Materials Company

CAROLINA STALITE COMPANY
DISCHARGE
APPROXIMATE LOCATION ROWAN/CABARRUS COUNTY LINE
PRE-1971 PIT DEVELOPMENT
SHOP
JOHN PAUL FERRANTE III AND ERIN ELIZABETH FERRANTE
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GARY A. RINEHARDT AND AMY LANE RINEHARDT
ALLAN L. KESLER
AREA 5
SETTLING POND
AREA 5 PERIMETER LANDSCAPE BUFFER YARD
JON P. JACKSON AND BARBARA E. JACKSON
MARTHA H YOUNG LIFE ESTATE
PHASE 4 PERIMETER LANDSCAPE BUFFER YARD
JON P. JACKSON AND BARBARA E. JACKSON
MARTHA H. YOUNG LIFE ESTATE
PHASE 3 PERIMETER LANDSCAPE BUFFER YARD
100' CLEARING LIMITS
JON P. JACKSON AND BARBARA E. JACKSON
TIMBER ACCESS ROAD
SPARKLE PROPERTIES LLC
DARYL K. PHILEN AND KAREN A. KIEFFER
EXISTING GATE AND ACCESS ROAD FOR FORESTRY OPERATIONS (NOT TO BE USED FOR QUARRY ACTIVITIES
TIMBER ACCESS ROAD
PROPOSED WESTERN MATERIAL STORAGE AREA
BERM B
100' STREET YARD BUFFER
GOLD HILL ROAD E.
OBSERVATION WELL #3 WELL TO BE PROTECTED FROM ANY DAMAGE DURING CONSTRUCTION
350 LF OF CLASS V 30" RCP @ 1.0%
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JASON H. CLINE AND REBECCA D. CLINE
DONALD F. CARPENTER
PHASE 3 PERIMETER LANDSCAPE BUFFER YARD
PHASE 2 PERIMETER LANDSCAPE BUFFER YARD
100' CLEARING LIMITS
DIONNE M. PIGGOTT
LARRY W. WHITLEY AND BARBARA P. WHITLEY
PHASE 1 PERIMETER LANDSCAPE BUFFER YARD
100' CLEARING LIMITS

0 200 400 600
SCALE 1" = 200'

PROFILE NOTES:

1. EXISTING GROUND PROFILES ARE BASED ON AERIAL PHOTOGRAPHY PREPARED BY TUCK MAPPING SOLUTIONS INC DATED 3-20-20.
2. THE PROPOSED DEVELOPMENT CONDITIONS ARE BASED ON THE SITE PLAN DRAWINGS PREPARED BY ALLEY WILLIAMS CARMEN & KING DATED 7-10-20.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
3-23-21
DocuSigned by: G. Wesley Webb 3A0D005E6BA648B...

DWG NO.: 11526 VULCAN LANDS CU ZONING PROFILE EXHIBIT.DWG

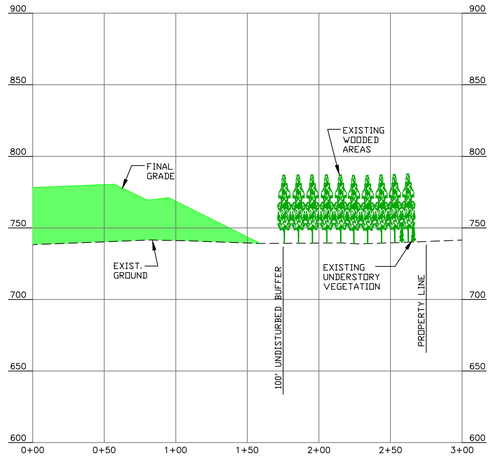
alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE	DATE: 12-17-20
PLAN: 1" = 200'	DRAWN BY: RCC
PROFILE	CHECKED BY: GWW
HORIZ.:	DWG No.:
VERT.:	

2020 CONDITIONAL REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E,, GOLD HILL NC 28071

STREET YARD AND PERIMETER BUFFER YARD PROFILES

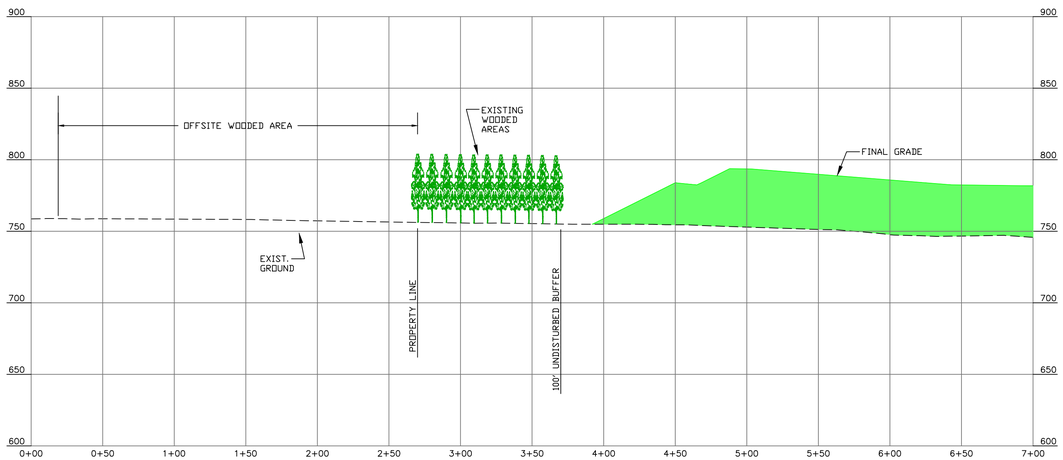
JOB NO. 11526
SHEET NO. 2
OF: 4



CROSS-SECTION A-A

0 50 100 150

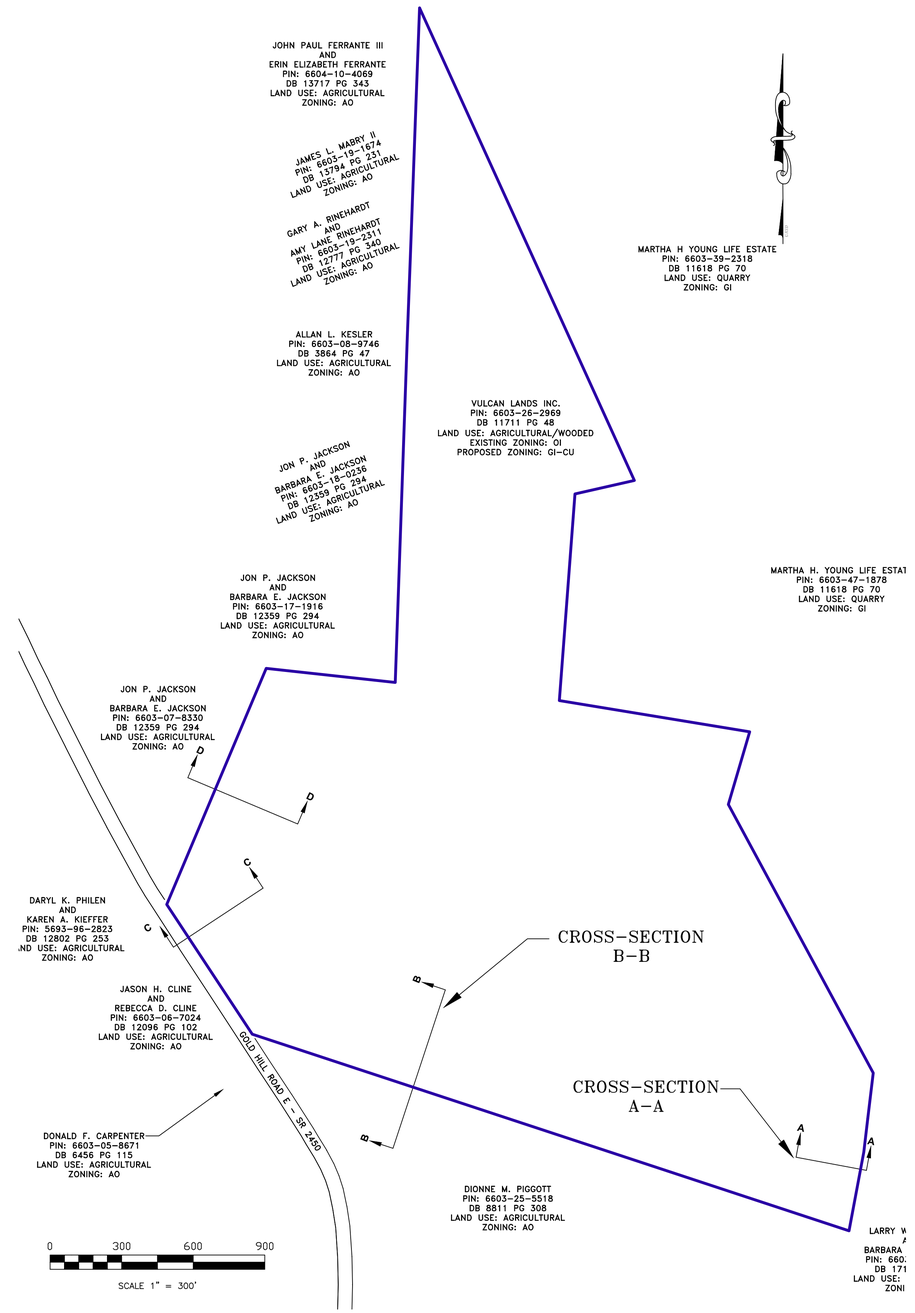
SCALE 1" = 50'



CROSS-SECTION B-B

0 50 100 150

SCALE 1" = 50'



0 300 600 900

SCALE 1" = 300'

PROFILE NOTES:

1. EXISTING GROUND PROFILES ARE BASED ON AERIAL PHOTOGRAPHY PREPARED BY TUCK MAPPING SOLUTIONS INC DATED 3-20-20.
2. THE PROPOSED DEVELOPMENT CONDITIONS ARE BASED ON THE SITE PLAN DRAWINGS PREPARED BY ALLEY WILLIAMS CARMEN & KING DATED 7-10-20.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb 3AD0056E6BA648B...

3-23-21

Vulcan Materials Company

R2. 3-23-21 REVISED SHEET #
R1. 12-26-20 REVISED PROFILE TEXT, NOTES AND MAP LABELING
DWG NO.: 11526 VULCAN LANDS CU ZONING PROFILE EXHIBIT.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

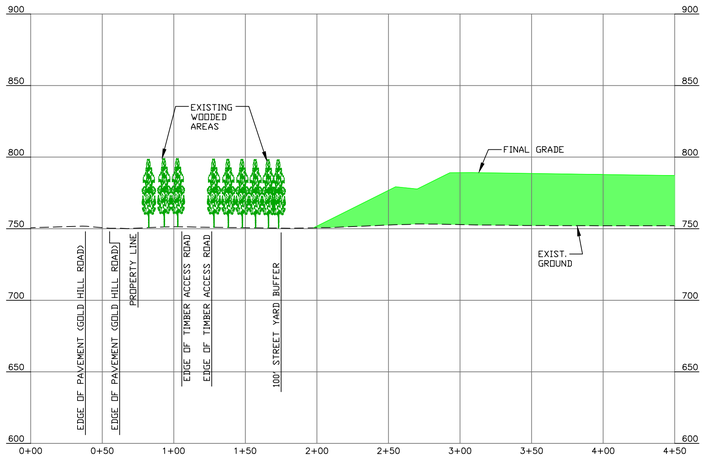
SCALE
PLAN:
PROFILE
HORIZ.: 1" = 50'
VERT.: 1" = 50'

DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

2020 CONDITIONAL REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E,, GOLD HILL NC 28071

PROPOSED CONDITION SITE LINE PROFILES

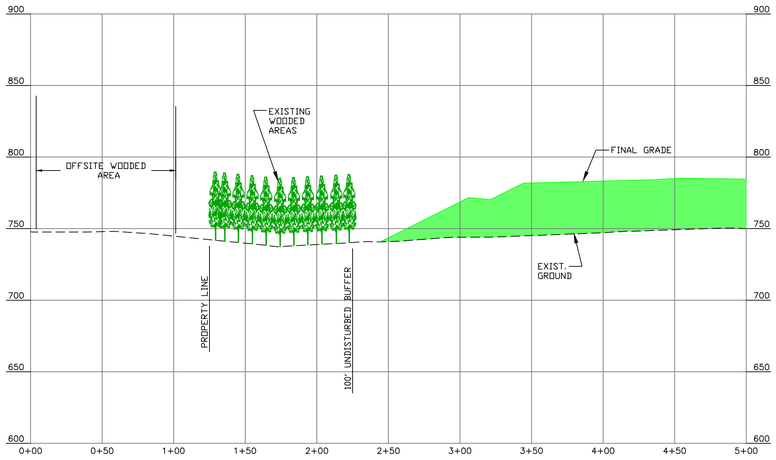
JOB NO. 11526
SHEET NO. 3
OF: 4



CROSS-SECTION C-C



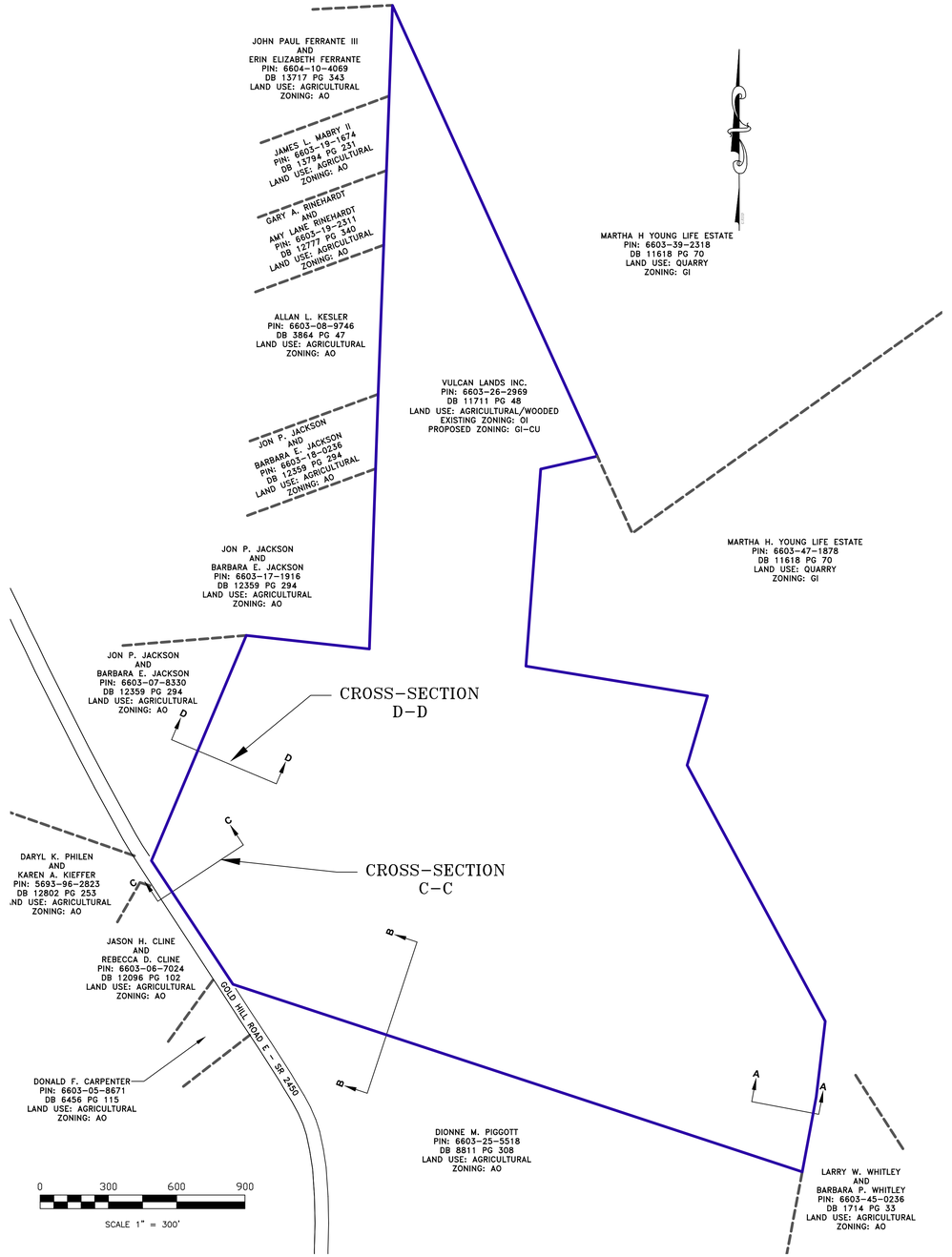
SCALE 1" = 50'



CROSS-SECTION D-D



SCALE 1" = 50'



SCALE 1" = 300'

PROFILE NOTES:

1. EXISTING GROUND PROFILES ARE BASED ON AERIAL PHOTOGRAPHY PREPARED BY TUCK MAPPING SOLUTIONS INC DATED 3-20-20.
2. THE PROPOSED DEVELOPMENT CONDITIONS ARE BASED ON THE SITE PLAN DRAWINGS PREPARED BY ALLEY WILLIAMS CARMEN & KING DATED 7-10-20.

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB

DocuSigned by: G. Wesley Webb
3ADD05E6BA648B...

3-23-21

Vulcan Materials Company

R2. 3-23-21 REVISED SHEET #
R1. 12-26-20 REVISED PROFILE TEXT, NOTES AND MAP LABELING
DWG NO.: 11526 VULCAN LANDS CU ZONING PROFILE EXHIBIT.DWG

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515

SCALE
PLAN:
PROFILE
HORIZ.: 1" = 50'
VERT.: 1" = 50'
DATE: 12-18-20
DRAWN BY: RCC
CHECKED BY: GWW
DWG No.:

2020 CONDITIONAL REZONING REQUEST
GOLD HILL QUARRY
VULCAN MATERIALS COMPANY
5300 GOLD HILL RD E,, GOLD HILL NC 28071

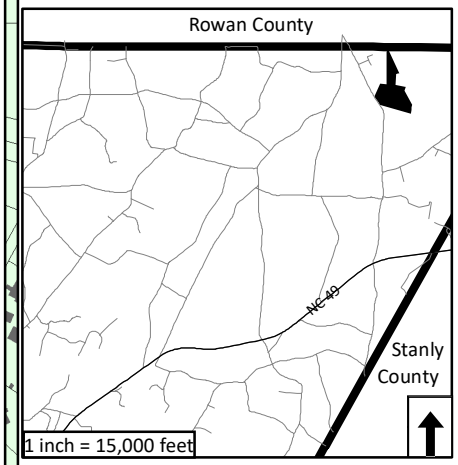
PROPOSED CONDITION SITE LINE PROFILES

JOB NO. 11526
SHEET NO. 4
OF: 4

Exhibit F

Eastern Planning Area
Existing Zoning

Applicant: Vulcan Lands Inc.
Owner: Vulcan Lands Inc.
Case: RZON2021-00001
Address: 5300 Gold Hill Rd E
Purpose: Rezone from OI to GI-CU
PINs: 6603-26-0969



Cabarrus County shall not be held liable for any errors in this data. This includes errors of omisssion, commission, errors concerning the content of the data, and relative and positional accuracy of the data. These data cannot be construed to be a legal document. Primary sources from which these data were compiled must be consulted for verification of information contained within the data.

Map Prepared by Cabarrus County Planning & Development - January 2021

CONNOR RD

GOLD HILL RD E

Subject Property

Legend

- Tax Parcels
- Cabarrus County
- Municipal District
- Structures
- AO
- AO-CU
- AO-SU
- CR
- LDR
- LDR-SU
- MDR
- MDR-SU
- HDR
- HDR-SU
- LC
- LC-SU
- GC
- GC-SU
- LI
- LI-SU
- GI
- GI-SU
- OI
- OI-SU
- PUD

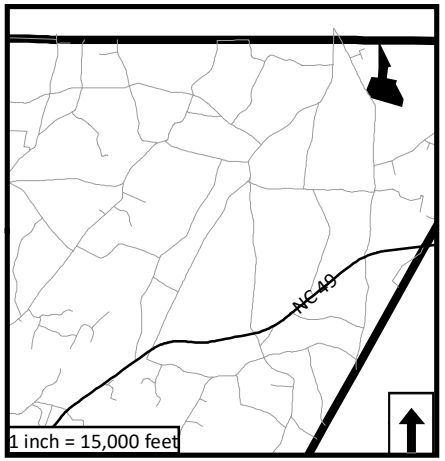
1 inch = 700 feet

0 250 500 1,000 1,500 2,000 Feet

Eastern Planning Area
Aerial Map

Applicant: Vulcan Lands Inc.
Owner: Vulcan Lands Inc.
Case: RZON2021-00001
Address: 5300 Gold Hill Rd E
Purpose: Rezone from OI to GI-CU
PINs: 6603-26-0969

CabarrusCounty
MunicipalDistrict
Tax Parcels



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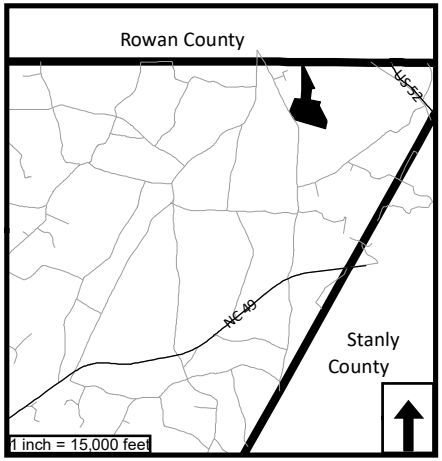
Map Prepared by Cabarrus County Planning & Development - January 2021

Rowan County
CONNOR RD
GOLD HILL RD E
Subject Property
1 inch = 700 feet
Feet
0 250 500 1,000 1,500 2,000

Eastern Planning Area
Future Land Use

Applicant: Vulcan Lands Inc.
Owner: Vulcan Lands Inc.
Case: RZON2021-00001
Address: 5300 Gold Hill Rd E
Purpose: Rezone from OI to GI-CU
PINs: 6603-26-0969



Cabarrus County shall not be held liable for any errors in this data. This includes errors of omisssion, commission, errors concerning the content of the data, and relative and positional accuracy of the data. These data cannot be construed to be a legal document. Primary sources from which these data were compiled must be consulted for verification of information contained within the data.

Map Prepared by Cabarrus County Planning & Development - January 2021

Rowan County

Subject Property

ST STEPHENS CHURCH
GOLD HILL
SHELLEY
CULP
BETHLEHEM CHURCH
LENTZ HARNESS SHOP
NC 49
Stanly County

1 inch = 0.51 miles

0 950 1,900 3,800 5,700 7,600 Feet

Legend

MainRoads
Streets
Municipal District

Extra-Territorial Jurisdiction

Extra-Territorial Jurisdiction
Planning Areas

Future Land Use

Historic Residential
Suburban Residential
Low Density Residential
Mixed Residential
Town Center
Village Mixed Use
Office/ Service
Institutional
Neighborhood Commercial
Commercial
Future Employment
Industrial
Mixed Use District
Open Space

LANDUSE_DI

Very Low-Density Residential
Low-Density Residential
Medium-Density Residential
Civic/Institutional
Commercial
Light Industrial
Mixed Use
Mixed Use - LI/C
Mixed Use - Town Center
Parks and Recreation

Future Land Use

Rural Residential
Very Low Density Residential
Low Density Residential
Medium Density Residential
Commercial
Institutional/Civic
Light Industrial
Mixed Use
Open Space/Recreation

SUPPLEMENTAL INFORMATION – VULCAN MATERIALS COMPANY
APPLICATION FOR CONDITIONAL USE REZONING
EXTRACTION OF EARTH PRODUCTS

In accordance with Chapter 8 of the Cabarrus County Zoning Ordinance, Vulcan Materials Company ("Vulcan") offers the following supplemental information in support of its Application for a conditional use rezoning for use of that 138.8 Acre site identified as Cabarrus County PIN#6603- 26-2969 in its application dated December 18, 2020 to store processed material and by-products from the extraction of earth products (the "Site").

OPERATIONS PLAN

I Date Operations Begin and their Expected Duration:

The Site will be used to store processed materials or by-products (collectively known as "overburden") of the excavation processes taking place on contiguous sites. The Site will also be used for Forestry operations. Excavation on adjacent properties is already in process and already producing overburden. The Site to be used to store processed materials and by-products will be used immediately for that purpose as excavation takes place on lands adjacent to it.

II. Proposed hours and days of operations.

The existing extractive use operation located contiguous to the Site may operate 24 hours 7 days a week without restrictions. Vulcan proposes to limit operations on the Site to between the hours of 6:00 a.m. to 8:00 p.m. Monday through Saturday and 7:00 a.m. to 6:00 p.m. on Sunday with the exception if we are required to supply materials needed for NCDOT construction or maintenance work that specifies alternative delivery times because of traffic control or other factors. In this case, Vulcan will utilize the Site to store the processed material and by-products from the extraction processes during the same hours.

III. Estimated type and volume of extraction.

No extraction activities are proposed for this Site.

IV. Description of method of operation, including the disposition of topsoil, overburden and any by-products.

By its very nature, mining (extraction) takes place in a natural progression with the initial installation of erosion/sediment control structures as specified in our state mining permit followed by the removal and stockpiling of the soil and soft rock (collectively known as "overburden") overlying the hard rock deposit. Once exposed, the rock is excavated in a series of lifts or benches. In broad terms, the depth of the excavation is limited by the aerial extent of the property contained in the mining permit boundary.

Permanent storage of processed materials or by-products of the crushing process is currently proposed for this Site. Storage of spoil piles and other accumulations of by-products shall not be created to a height of more than forty (40) feet above the original contour and shall be so graded that the vertical slope shall not exceed the material's natural angle of repose.

V. Description of equipment to be used in the excavation process.

No excavation activities are proposed for this Site.
Basic earth moving equipment consisting of off road haul trucks, bulldozers, and pans will be used to transport the overburden to the Site. Logging trucks will be used for removal of trees and other debris in connection with Forestry operations that are also proposed for a portion of Site.

VI. Any phasing of the operations and the relationship among the various phases.

The Site will be used to store overburden from the excavation processes on adjacent properties. Use of the Site for storage of overburden will be phased as shown on the Site Plan. Vulcan anticipates initial operations will move across this parcel being used for overburden over time based upon the market demands for construction aggregate products in the region.

SUPPLEMENTAL INFORMATION – VULCAN MATERIALS COMPANY
APPLICATION FOR CONDITIONAL USE REZONING
EXTRACTION OF EARTH PRODUCTS

In accordance with Chapter 8 of the Cabarrus County Zoning Ordinance, Vulcan Materials Company (Vulcan) offers the following supplemental information in support of its Application for a conditional use rezoning for use of that 138.8 Acre site identified as Cabarrus County PIN#6603- 26-2969 in its application dated December 18, 2020 to store processed material and by-products from the extraction of earth products (the "Site").

REHABILITATION/RECLAMATION PLAN

Statement of planned rehabilitation of the excavated land including detailed methods of accomplishment and planned future use of the rehabilitated land.

See Reclamation Plan on Rezoning Site Plan for details. Please also see approved Mining Permit modified September 30, 2020 to include the Site (as modified, the "Mining Permit"). The Mining Permit includes the Approved Reclamation Plan for the Gold Hill Quarry.

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Reclamation at Gold Hill Quarry is an ongoing process. Through on-site inspections, Vulcan Materials Company monitors, on a periodic basis, the Site for areas that may need maintenance or construction of additional erosion and other control measures. The areas of the Site identified to be used for overburden storage, will be sloped for drainage, contoured, graded and vegetated pursuant to the approved seed mix. All fill slopes are to be constructed with 2:1 slopes or flatter. The slopes are to be seeded with approved seed mix and stabilized. The Revegetation Plan is set forth within the Mining Permit, pages 13-14.

A map showing the final topography, after rehabilitation, to the same scale as the Site plan. It shall also depict any water areas and methods of preventing stagnation and pollution, landscaping and ground cover proposed to be installed and the amount and type of any backfill, if any, to be employed.

See Site Plan.

A phasing and timing plan, related to the phasing and timing portion of the Operations Plan, showing the progression of the rehabilitation and the date to be completed.

Please see Phases 1-4 as identified on the Site Plan. The Site should provide storage space for the operation of the Gold Hill Quarry in excess of 50 years. Reclamation of the parcel will be conducted contemporaneously with mining at the adjacent properties to the extent feasible and will be completed once the parcel is no longer used for overburden.

The method of disposing of all equipment, structures, dikes and spoil piles associated with the operations.

All equipment and structures, if any, will be removed from the Site and all spoil piles will be

covered with topsoil, seeded, and a permanent ground cover established. Proposed reclamation plan once excavation and operations are terminated is to restore the land to vegetation pursuant to the Revegetation Plan.

A written legal description or survey of the Site, prepared by a North Carolina registered land surveyor of engineer is included with the Site Plan.

A copy of the legal description is included on the site plan.

The name, address and signature of land owners and applicants. *Provided in the application form.*

[SIGNATURES ON THE FOLLOWING PAGE]

APPLICANT:

VULCAN MATERIALS COMPANY
4401 North Patterson Avenue
Winston Salem NC 27105

BY:_____
ITS:_____

PROPERTY OWNER:

VULCAN LANDS, INC.
1200 Urban Center Drive
FAS 1401-843
Birmingham, AL 35242

BY:_____
ITS:_____

Increase PENALTY RIDER

BOND AMOUNT $500,000.00 BOND NO. 09010657

To be attached and form a part of Bond No. 09010657 dated the 28th day of July, 2010, executed by Fidelity and Deposit Company of Maryland as surety, on behalf of Vulcan Construction Materials, LLC as current principal of record, and in favor of State of North Carolina, Department of Environmental and Natural Resources, as Obligee, and in the amount of Five Hundred Thousand Dollars and 00/100 ($500,000.00).

In consideration of the agreed premium charged for this bond, it is understood and agreed that Fidelity and Deposit Company of Maryland hereby consents that effective from the 22nd day of January, 2018, said bond shall be amended as follows:

THE BOND PENALTY SHALL BE Increased:

FROM: Five Hundred Thousand Dollars and 00/100 ($500,000.00)

TO: One Million Dollars and 00/100 ($1,000,000.00)

The Increase of said bond penalty shall be effective as of the 22nd day of January, 2018, and does hereby agree that the continuity of protection under said bond subject to changes in penalty shall not be impaired hereby, provided that the aggregate liability of the above mentioned bond shall not exceed the amount of liability assumed by it at the time the act and/or acts of default were committed and in no event shall such liability be cumulative.

Signed, sealed and dated this 22nd day of January, 2018.

Vulcan Construction Materials, LLC
PRINCIPAL

BY: James R. Averitt
James R. Averitt, Assistant Secretary

Fidelity and Deposit Company of Maryland
SURETY

BY: Annette Wisong
Annette Wisong, ATTORNEY-IN-FACT

THE ABOVE BOND IS HEREBY AGREED TO AND ACCEPTED BY:

State of North Carolina, Departmentt of Environmental and Natural Resources
OBLIGEE

BY: _____
TITLE

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **DAVID MCVICKER, Vice President,** in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Joseph W. HAMILTON, III, Joseph R. WILLIAMS, Tina KENNEDY, Steven L. SWORDS, Annette WISONG, Rebecca E. HOWARD, Chaun M. WILSON, Sarah HANCOCK and Desiree PAYNE, all of Atlanta, Georgia, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 29th day of September, A.D. 2017.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: _____
Assistant Secretary
Joshua Lecker

_____
Vice President
David McVicker

State of Maryland
County of Baltimore

On this 29th day of September, A.D. 2017, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **DAVID MCVICKER, Vice President, and JOSHUA LECKER, Assistant Secretary,** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

_____
Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 22 day of January, 20 18.

Michael Bond, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT ALL REQUIRED INFORMATION TO:

Zurich American Insurance Co.
Attn: Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

BRIAN WRENN
Director

NORTH CAROLINA
Environmental Quality

September 30, 2020

Mr. Tony Johnson
Vulcan Construction Materials, LP
4401 N. Patterson Avenue
Winston-Salem, North Carolina 27105

RE: Permit No. 13-04
Gold Hill Quarry
Cabarrus County
Yadkin River Basin

Dear Mr. Johnson:

Your recent request to have the above referenced mining permit modified has been approved. The modification is to increase the permitted acreage to 553.8 acres and the affected acreage at this site to 478.5 acres as indicated on the Mine Modification Map dated July 10, 2020. The modification includes the addition of a 138.8-acre tract of land to the western side of the quarry and an approval to construct a material storage area. The modification also includes the addition of 100 foot undisturbed buffers on the eastern and southern side of the property to replace screening berms that were originally approved for the project. A copy of the modified permit is enclosed.

The conditions in the modified permit were based primarily upon the initial application. Modifications were made as indicated by the modification request and as required to ensure compliance with The Mining Act of 1971. The mine name and permit number shall remain the same as before the modification. I would like to draw your particular attention to the following conditions where minor additions or changes were made: Operating Condition Nos. 3C, 4B, 5A,10B, 13, and 14.

G.S. 74-65 states that the issuance of a mining permit and/or any modification to it does not supersede local zoning regulations. The responsibility of compliance with any applicable zoning regulations lies with you.

As a reminder, your permitted acreage at this site is 553.8 acres and the amount of land you are approved to disturb is 478.5 acres.

Please review the modified permit and contact Adam Parr, Assistant State Mining Engineer, at (919) 707-9220 should you have any questions concerning this matter.

Sincerely,

David Miller, PE
State Mining Engineer

DM/ap
Enclosures
cc: Mr. Zahid Kahn, PE
Mr. William Gerringer-Mine and Quarry Bureau, w/o enclosures

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68, "The Mining Act of 1971," Mining Permit Rule 15A NCAC 5 B, and other applicable laws, rules, and regulations

Permission is hereby granted to:

Vulcan Construction Materials LLC.

Gold Hill Quarry

Cabarrus County - Permit No. 13-04

for the operation of a

Crushed Stone Quarry

which shall provide that the usefulness, productivity and scenic values of all lands and waters affected by this mining operation will receive the greatest practical degree of protection and restoration.

In accordance with the application for this mining permit, which is hereby approved by the Department of Environment and Natural Resources hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other security on file with the Department, and may survive the expiration, revocation, or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation, or suspension by the Department. Alternatively, and in addition to the above, the Department may institute other enforcement procedures authorized by law.

Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, GS 74-49.

Modifications

January 31, 1989: This permit has been modified to allow the relocation of the existing stream south of the existing quarry excavation as per the revised Erosion Sediment Control and Drainage Plan dated January 10, 1989 provided that this plan complies with the rules and regulations promulgated by the US Army Corps of Engineers.

August 4, 1993: This permit has been modified to allow land application of contaminated soils as indicated on the Mine Map dated May 18, 1992 and revised May 26, 1993 and on the Erosion Control Detail Sheet dated May 18, 1992 and revised May 26, 1993. This activity shall be in accordance with all applicable rules and regulations administered by the Environmental Management Commission.

July 2, 1998: This permit has been modified to allow the construction of a 3 acre overburden disposal area, an additional stream crossing, and the addition of associated sediment and erosion control measures as per the modification application dated March 1998 and the revised Site Plan dated May 1998.

January 1, 2000: This permit has been modified to change the corporate name from Vulcan Materials Company to Vulcan Construction Materials, LP.

December 20, 2001: This permit has been modified to allow the southeast pit expansion, removal of the existing overburden disposal berm, and realignment of the perimeter road as indicated on the Mine Map dated August 29, 2001 and last revised October 31, 2001.

April 15, 2004: This permit has been modified to increase the permitted acreage to 425.92 acres and the affected acreage at this site to 400 acres as indicated on the mine maps last revised February 13, 2004. The modification includes the expansion to the south and for other purposes including future reserves to the east, drainage channel relocation to the southern extent of the site, two creek crossing installations and maintenance of the associated sediment and erosion control measures.

August 21, 2012: This permit has been modified to reduce the affected acreage at this site to 391.3 acres as indicated on the 2012 Renewal Mine Map last revised July 18, 2012. This modification includes the relocation of a stream crossing, relocation of a screening berm, removal of a major diversion channel, addition of new sediment control basins and redesign of erosion control measures to the updated standards. In addition, the affected acreage has been reduced based on updated surveys and aerial mapping.

August 22, 2013: This permit has been modified to decrease the affected acreage at this site to 382.8 acres and decrease the permitted acres to 415 acres as indicated on the mine map dated August 22, 2013.

August 18, 2015: This permit has been modified to change the corporate name from Vulcan Construction Materials, LP., to Vulcan Construction Materials, LLC.

December 1, 2017: This permit has been issued for the life of site or the duration of the lease term.

September 30, 2020: This permit has been modified to increase the permitted acreage to 553.8 acres and the affected acreage at this site to 478.5 acres as indicated on the Mine Modification Map dated July 10, 2020. The modification includes the addition of a 138.8-acre tract of land to the eastern side of the quarry and an approval to construct a material storage area. The modification also includes the addition of 100 foot undisturbed buffers on the eastern and southern side of the property to replace screening berms that were originally approved for the project.

This permit is valid for the life of the site or life of lease, if applicable, as defined by Session Law

2017-209 and has no expiration date. However, all provisions of GS 74-51 and GS 74-52 still apply for new, transferred, and modified mining permits.

Conditions

This Permit shall be subject to the provisions of the Mining Act, GS 74-46, et. seq., and to the following conditions and limitations:

OPERATING CONDITIONS:

1. Wastewater and Quarry Dewatering

   A. Any wastewater processing or mine dewatering shall be in accordance with the permitting requirements and rules promulgated by the N.C. Environmental Management Commission.

   B. Any storm water runoff from the affected areas at the site shall be in accordance with any applicable permit requirements and regulations promulgated by the Environmental Protection Agency and enforced by the N.C. Environmental Management Commission. It shall be the permittee's responsibility to contact the Division of Water Quality to secure any necessary storm water permits or other approval documents.

2. Air Quality and Dust Control

   A. Any mining related process producing air contaminant emissions including fugitive dust shall be subject to the requirements and rules promulgated by the N.C. Environmental Management Commission and enforced by the Division of Air Quality.

   B. The permanent access (plant entrance) road shall be paved a minimum of 200 linear feet. During processing operation, water trucks or other means that may be necessary shall be utilized to prevent dust from leaving the permitted area.

3. Buffer Zones

   A. Any mining activity affecting waters of the State, waters of the U. S., or wetlands shall be in accordance with the requirements and regulations promulgated and enforced by the N. C. Environmental Management Commission.

   B. Sufficient buffer shall be maintained between any affected land and any adjoining waterway or wetland to prevent sedimentation of that waterway or wetland from erosion of the affected land and to preserve the integrity of the natural watercourse or wetland.

C. All buffer zones shown on the 2020 Modification Mine Map last revised July 10, 2020 shall be maintained to protect adjoining property. These buffer zones, with the exception of the installation of required sediment control measures and approved earthen berms, shall remain undisturbed.

D. The 100-foot-wide stream crossing shall not be installed until the proper approvals/permits have been obtained from the Division of Water Quality and any other applicable agencies.

4. Erosion and Sediment Control

A. Adequate mechanical barriers including, but not limited to diversions, earthen dikes, check dams, sediment retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance and maintained to prevent sediment from discharging onto adjacent surface areas or into any lake, wetland or natural watercourse in proximity to the affected land.

B. All mining activities, including the installation and maintenance of all erosion and sedimentation control measures, shall be conducted as indicated on the 2020 Modification Mine Map last revised July 10, 2020. Mining activities shall also be conducted to follow the 2012 supplemental information received by the Land Quality Section on April 17, 2012 and July 20, 2012 with the stipulation that the 100-foot-wide stream crossing shall not be installed until the proper approvals/permit have been obtained from the Division of Water Quality and any other applicable agencies.

C. An erosion and sediment control plan(s) shall be submitted to the Department for approval prior to any land disturbing activities not indicated on the revised erosion control plan or mine maps submitted with the approved application for a mining permit and any approved revisions to it. Such areas include, but are not limited to, expansion outside of the approved pit area, creek crossings, or expansion of overburden or waste disposal areas.

5. Groundwater Protection

A. The observation wells denoted on the 2020 Modification Mine Map last revised July 10, 2020 shall be monitored at least 30 days prior to initiating any excavations of consolidated material (rock) in the initial pit area to allow for the determination of pre-existing (static) groundwater levels.

B. The observation wells shall be drilled wells cased into consolidated rock and grouted to the surface. The wells (boreholes) shall be extended at least 50 feet below static water level, or at least 50 feet into unweathered rock, whichever is deeper. The wells shall be secured against unauthorized entry with a lockable cap. The necessary permits or approvals to construct these wells shall be obtained from the N.C. Division of Water Quality.

C. The observation wells shall be monitored quarterly at the same day and approximate time of day. The static water levels shall be measured with an accuracy of plus or minus 0.1 foot and shall be referenced to a datum point and a record of the water levels maintained. The quarterly precipitation and the volume of pit water discharge shall also be recorded. Copies of these records shall be provided to the Department on or about the end of each quarter. Static water level monitoring frequency may be increased or decreased as deemed appropriate by the Department.

6. Graded Slopes and Fills

A. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measure, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause off-site damage because of siltation, shall be planted, or otherwise provided with groundcover, devices, or structures sufficient to restrain such erosion.

B. Overburden cut slopes along the quarry opening shall be graded to a minimum 2 horizontal to 1 vertical or flatter and shall be stabilized within 60 days of completion. Furthermore, a minimum ten (10) foot wide horizontal safety bench shall be provided at the top of the rock and at the toe of any overburden slope.

7. Surface Drainage

The affected land shall be graded so as to prevent collection of pools of water that are, or likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

8. Blasting

The operator shall monitor each blast with a seismograph located at a distance no farther than the closest off site regularly occupied structure not owned or leased by the operator. A seismographic record including peak particle velocity, air overpressure, and vibration frequency levels shall be kept for each blast (except as provided under Operating Condition Nos. 8B and 8D of this permit). The following blasting conditions shall be observed by the mine operator to prevent hazard to persons and adjacent property from surface blasting:

A. Ground Vibration with Monitoring:

In all blasting operations, the maximum peak particle velocity of any component of ground motion shall not exceed Figure 1 (below) at the immediate location of any regularly occupied building outside of the permitted area such as a dwelling house, church, school, or public, commercial or institutional building.

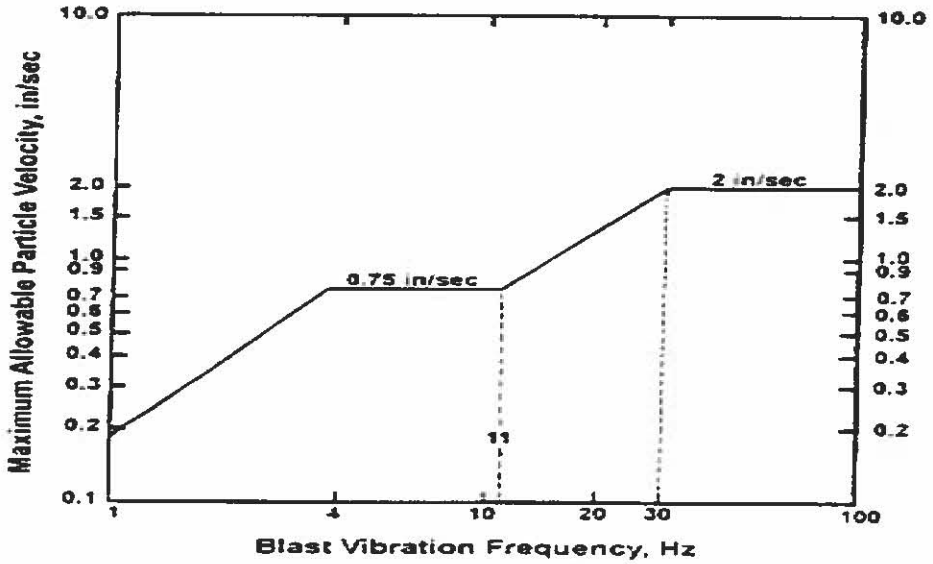

Figure 1 Alternative blasting level criteria
(Source modified from figure B-1, Bureau of Mines R18507)

B. Ground Vibration without Monitoring:

In the event of seismograph malfunction or other condition which prevents monitoring, blasting shall be conducted in accordance with the following formulas:

$$W = (D/D_s)^2 \qquad D_s = \frac{D}{W^{1/2}}$$

$$V = 160(D_s)^{-1.6}$$

W = Maximum charge weight of explosives per delay period of 8.0 milliseconds or more (pounds).
D = Distance from the blast site to the nearest inhabited building not owned or leased by the mine operator (feet).
D_s = Scaled distance factor.
V = Peak Particle Velocity (inches per second).

The peak particle velocity of any component shall not exceed 1.0 inch per second, for the purposes of this Section.

C. Air Blast with Monitoring:

Air blast overpressure resulting from surface blasting shall not exceed 129 decibels linear (dBL) as measured at the immediate location of any regularly

occupied building not owned or leased by the operator outside of the permitted area such as a dwelling house, church, school, or public, commercial or institutional building, unless an alternate level based on the sensitivity of the seismograph microphone as specified below is being used:

Lower Frequency Limit of Measuring System, in Hz	Max Level, in dBL
0.1 Hz or lower-flat response	134 peak
2.0 Hz or lower-flat response	133 peak
6.0 Hz or lower-flat response	129 peak

D. Air Blast without Monitoring:

In the event of seismograph malfunction or other condition which prevents monitoring, blasting shall be conducted in accordance with the following formulas:

$$U = 82\ (D/W^{0.33})^{-1.2}$$

To convert U (psi) to P (dBL):

$$P = 20 \times \log\ (U/2.9 \times 10^{-9})$$

Confined Air blast/Overpressure (dBL)
for quarry situation:

$$A = P - 35$$

U = Unconfined air overpressure (pounds per square inch).
W = Maximum charge weight of explosives per delay period of 8.0 milliseconds or more (pounds).
D = Distance from the blast site to the nearest inhabited building not owned or leased by the mine operator (feet).
P = Unconfined air overpressure (decibels).
A = Air blast or air overpressure for typical quarry situations (decibels).

The air blast/overpressure shall not exceed 129 decibels, for the purposes of this Section.

E. Record Keeping:

The operator shall maintain records on each individual blast describing: the total number of holes; pattern of holes and delay of intervals; depth and size of holes; type and total pounds of explosives; maximum pounds per delay interval; amount of stemming and burden for each hole; blast location; distance from blast to

closest offsite regularly occupied structure; and weather conditions at the time of the blast. Records shall be maintained at the permittee's mine office and copies shall be provided to the Department upon request.

F. Excessive Ground Vibration/Air Blast Reporting:

If ground vibration or Air blast limits are exceeded, the operator will immediately report the event with causes and corrective actions to the Department. Use of explosives at the blast site that produced the excessive reading shall cease until corrective actions approved by the Department are taken. However, blasting may occur in other approved areas within the permitted boundary. Authorization to blast at the blast site may be granted at the time of the verbal reporting of the high ground vibration or high air blast reading if the circumstances justify verbal approval. Failure to report will constitute a permit violation.

G. Flyrock Prevention:

The operator shall take all reasonable precautions to ensure that flyrock is not thrown beyond areas where the access is temporarily or permanently guarded by the operator. Failure to take corrective measures to prevent flyrock and repeated instances of flyrock shall be considered a violation of the Mining Permit.

H. Flyrock Reporting:

Should flyrock occur beyond the permitted and guarded areas, the operator shall immediately report the incident to the Department. Further use of explosives on the mine site shall be suspended until the following actions have been taken:

1. A thorough investigation as to the cause(s) of the incident shall be conducted.

2. A report detailing the investigation shall be provided to the Department within 10 days of the incident. The report shall, at a minimum, document the cause(s) of the incident along with technical and management actions that will be taken to prevent further incidents. The report shall meet with the approval of the Department before blasting may resume at the mine site.

I. Studies:

The operator shall provide to the Department a copy of the findings of any seismic studies conducted at the mine site in response to an exceedance of a level allowed by these blasting conditions. The operator shall make every reasonable effort to incorporate the studies' recommendations into the production blasting program.

J. Notice:

The operator shall, when requested by the Department, give 24-hour advance notice to the Land Quality Section Regional Office prior to any blast during a period for which notice is requested.

9. High Wall Barrier

A physical barrier consisting of large boulders placed end-to-end or fencing shall be maintained at all times along the perimeter of any highwall to prevent inadvertent public access. In addition, a minimum 10 foot wide horizontal safety bench shall be provided at the junction between the top of rock and the toe of any overburden cut slope.

10. Visual Screening

A. Existing vegetation shall be maintained between the mine and public thoroughfares to screen the operation from the public. Additional screening methods, such as constructing earthen berms, shall be employed as deemed appropriate by the Department.

B. Vegetated earthen berms shall be located and constructed as shown on the 2020 Modification Mine Map last revised July 10, 2020. In addition to grasses, long leaf and/or Virginia pines or other acceptable evergreen species shall be planted as deemed appropriate by the Department to improve visual and noise buffering.

11. Plan Modification

The operator shall notify the Department in writing of the desire to delete, modify or otherwise change any part of the mining, reclamation, or erosion/sediment control plan contained in the approved application for a mining permit and any approved revisions to it. Approval to implement such changes must be obtained from the Department prior to on-site implementation of the revisions.

12. Refuse Disposal

A. No on-site disposal of refuse or other solid waste that is generated outside of the mining permit area shall be allowed within the boundaries of the mining permit area unless authorization to conduct said disposal has first been obtained from both the Division of Waste Management and the Land Quality Section, Department of Environment and Natural Resources. The method of disposal shall be consistent with the approved reclamation plan.

B. Mining refuse as defined by GS 74-49 (14) of The Mining Act of 1971 generated on-site and directly associated with the mining activity may be disposed of in a designated refuse area. All other waste products must be disposed of in a

disposal facility approved by the Division of Waste Management. No petroleum products, acids, solvents or their storage containers or any other material that may be considered hazardous shall be disposed of within the permitted area.

C. For the purposes of this permit, the Division of Land Resources considers the following materials to be "mining refuse" (in addition to those specifically listed under G.S. 74-49 (14) of the N.C. Mining Act of 1971):

1. on-site generated land clearing debris
2. conveyor belts
3. wire cables
4. v-belts
5. steel reinforced air hoses
6. drill steel

D. If mining refuse is to be permanently disposed within the mining permit boundary, the following information must be provided to and approved by the Division of Land Resources prior to commencement of such disposal:

1. the approximate boundaries and size of the refuse disposal area;
2. a list of refuse items to be disposed;
3. verification that a minimum of 4 feet of cover will be provided over the refuse;
4. verification that the refuse will be disposed at least 4 feet above the seasonally high water table; and
5. verification that a permanent vegetative groundcover will be established.

13. Annual Reclamation Report

An Annual Reclamation Report and Annual Operating Fee of $400.00 shall be submitted to the Department by September 1 of each year until reclamation is completed and approved for release by the Department.

14. Bonding

The security, which was posted pursuant to GS 74-54 in the form of a $1,000,000.00 blanket bond, is sufficient to cover the operation as indicated in the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.

15. Archaeological Resources

Authorized representatives of the Division of Archives and History shall be granted access to the site to determine the presence of significant archaeological resources.

APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the terms of the Mining Permit.

The approved plan provides:

Minimum Standards as Provided by GS 74-53

1. The final slopes in all excavations in soil, sand, gravel, and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.

2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.

3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.

4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious, or foul.

5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the North Carolina Agricultural Experiment Station and the North Carolina Forest Service.

6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, provide reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

RECLAMATION CONDITIONS:

1. Provided further, and subject to the Reclamation Schedule, the planned reclamation shall be to allow the quarry excavation to fill with water, provide a permanent barricade (fence) along the top of any high wall, and grade and revegetate any areas in unconsolidated material.

2. The specifications for surface gradient restoration to a surface suitable for the planned future use are as follows:

A. All areas of unconsolidated material such as overburden or waste piles shall be graded to a 2 horizontal to 1 vertical or flatter slope and terraced as necessary to insure slope stability.

B. Any settling ponds and sediment control basins shall be backfilled, graded, and stabilized or cleaned out and made into acceptable lake areas.

C. The processing, stockpile, and other disturbed areas neighboring the mine excavation shall be leveled and smoothed.

D. Compacted surfaces shall be disked, subsoiled, or otherwise prepared before revegetation.

E. No contaminants shall be permanently disposed of at the mine site. On-site disposal of waste shall be in accordance with Operating Conditions Nos. 12.A. through D.

F. The affected land shall be graded to prevent the collection of noxious or foul water.

3. Revegetation Plan:

Disturbed areas shall be permanently revegetated according to the Revegetation Plan prepared by Mr. Robert J. Grill, Landscape Architect, on March 4, 2002 or the following:

Permanent Seeding Specifications

Dates	Species	Rate, Lbs./Acre
February 15- April 1	Korean Lespedeza	10
	Fescue	40
	Redtop	1
	Winter rye (grain)	15
April 1- July 31	Common Bermuda	50
August 1- October 25	Lespedeza (unscarified)	30
	German millet	40
October 25- February 15	Rye (grain- temporary)	120

Soil Amendments

Lime: 2000 lbs./acre or follow recommendations from a soil test.

Fertilizer: 1000 lbs./acre 8-8-8 or 10-10-10 or follow recommendations from a soil test.

Mulch: All seeded areas shall be mulched using small grain straw at a rate of 2000 lbs./acre and anchored appropriately.

Whenever possible, disturbed areas should be vegetated with native warm season grasses such as switch grass, Indian grass, bluestem, and gamma grass.

In addition, the permittee shall consult with a professional wildlife biologist with the N.C. Wildlife Resources Commission to enhance post-project wildlife habitat at the site.

4. Reclamation Plan:

Reclamation shall be conducted simultaneously with mining to the extent feasible. In any event, reclamation shall be initiated as soon as feasible after completion or termination of mining of any mine segment under permit. Final reclamation, including revegetation, shall be completed within two years of completion or termination of mining.

This permit, issued August 31, 1972 to Young Stone Company, Inc., renewed September 1, 1982, transferred September 1, 1966 to Vulcan Construction Company, Modified January 31, 1989, renewed October 30, 1992, modified August 4, 1993, July 2, 1998, January 1, 2999, December 20, 2001, renewed May 1, 2001 and modified April 18, 2004, simultaneously renewed and modified August 21, 2012, modified August 18, 2015 and December 1, 2017, is hereby modified this 30th day of September, 2020 pursuant to GS 74-52.

By: _____

Brian Wrenn, Director
Division of Energy, Mineral, and Land Resources
By Authority of the Secretary
Of the Department of Environmental Quality

Exhibit K

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES

GENERAL PERMIT NO. NCG020000
CERTIFICATE OF COVERAGE No. NCG020108

STORMWATER AND WASTEWATER DISCHARGES
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Vulcan Construction Materials LP

is hereby authorized to discharge stormwater and/or wastewater, as provided in the original Certificate of Coverage (COC), or subsequent COC modification, from a facility located at:

Vulcan Construction Materials-Gold Hill
16745 Old Beatty Ford Rd
Gold Hill
Cabarrus County

to receiving waters designated as Long Creek, class C water(s) in the Yadkin River Basin(s) in accordance with the stormwater pollution management requirements, monitoring and reporting requirements, and other conditions set forth in Parts I, II, III, IV, V, and VI of General Permit No. NCG020000 as attached.

This Certificate of Coverage shall become effective October 1, 2015.

This Certificate of Coverage shall remain effective for the duration of the General Permit.

Signed this day October 1, 2015.

Bradley Bennett

for Tracy E. Davis, P.E., CPM
Director, Division of Energy, Mineral and Land Resources
By the Authority of the Environmental Management Commission

AMENDED JUSTIFICATION OF ALTERNATIVE METHOD OF COMPLIANCE WITH LANDSCAPE REQUIREMENTS

Applicant Vulcan Materials Company ("Vulcan") seeks to rezone 138.38 acres of vacant, wooded property from O/I to GI-CU (the "Site"). Use of approximately 113 acres of the Site will be devoted to storage of overburden from the existing, adjacent mining operations. The remaining 25 acres identified as Area 5 will be left in its natural state, save and except for standards forestry operations and pond maintenance activities. No excavation (pit) is proposed for the Site. The adjacent Gold Hill Quarry has been in operation for over 60 years.

Overburden (consisting of rocks and dirt) will be placed on the Site within the phased areas and over time, graded and seeded to create a series of vegetated plateaus. Unlike most "development", use of each phased area will likely move slowly, estimated at between 2-5 years per phase. No structures are proposed for the Site; the area to remain vacant and inhabited only by native plantings and wildlife.

The property abutting the Site's eastern and northeastern boundaries is used for existing Quarry operations. Property to the North of the Site, in Rowan County, is zoned IND (industrial). The Site's other non-quarry boundaries are against vacant AO zoning.

Chapter 8 Conditional Uses, Section 12 "Extraction of Earth Products" provides a site specific buffer standard for quarry use and specifically requires a Level 2 buffer around the perimeter of the "facility". We read this to mean that a minimum 75 foot wide buffer consisting of 4 trees or 8 ornamentals plus 20 shrubs per 100 linear feet is required around the perimeter of the Site, except adjacent to existing Quarry.

The Site also has frontage along a small portion of Gold Hill Road E.
Chapter 9-8 requires a 10 foot street yard buffer against any public right of ways such as Gold Hill Road E. The standard street yard buffer requires one canopy or two understory trees plus 10 shrubs per 30 linear feet.

As part of this project, Applicant proposes to use existing vegetation to buffer the vegetated plateaus created by the overburden storage. Applicant will literally be buffering a 138 acre buffer.

The non-quarry perimeter of the Site is wooded with ample existing vegetation that will provide visual screening and separation of use against adjacent tracts. Area 5 will serve as 25 acres of additional buffer against existing quarry operations.

Given the proposed use of the Site and its ample existing vegetation, Applicant proposes the following alternative buffers as an alternate method of complying with the required buffers for this Site.

1. **The landscape requirements that will be met with the modifications.**

Applicant proposes using a 100 foot wide perimeter landscape buffer around the non-quarry perimeter of the Site.

The proposed perimeter buffer will consist of existing vegetation that will provide visual screening and separation between uses.

In areas identified on the Landscape Plan (sheets 15 and 16) of the Site Plan where the existing vegetation does not provide adequate visual screening, Applicant shall supplement as described in the Site Plan prior to commencement of mining activities in the phase in which the identified area is located.

The Site is phased. Prior to commencing any mining related activities in a phase, Applicant will review existing vegetation with County Staff to determine whether any additional plantings are necessary to provide visual screening and separation.

2. **The landscape requirements that will not be met with the modifications**.

Applicant proposes using 100 foot wide perimeter landscape buffer of existing vegetation around the non-quarry perimeter of the Site.
The proposed buffer may not include the requisite number of shrubs and trees to meet the precise "per linear feet" requirements perimeter and street yard buffer requirements.

3. **Which of the conditions set forth above justify consideration of the proposed alternative plan?**

a. The density of the existing vegetation along the majority of the Site's boundaries will make it difficult, if not impossible for shrubbery plantings to survive.
b. Compliance with Ordinance shrub quotas will necessitate removal of existing trees and other vegetation just to clear a path for the planting equipment. Additional area will also need to be cleared to install erosion control measures to prevent sediment loss from the access clearing and planting bed construction.
c. Natural vegetation on the Site, if undisturbed during the phased development process, can meet or exceed the required vegetation.
d. Restricted use of Area 5 to remain in its natural state and left undisturbed save forestry operations and pond maintenance.
e. Limited use of Phases 1-4 areas for overburden storage.
f. Buffering vegetated plateaus created by the overburden storage. Plateaus will not exceed 40 feet in height.

Such site conditions make strict compliance with Ordinance requirements impractical if not impossible.

4. **How the proposed alternative plan meets or exceeds what is required by the Ordinance and how it meets the intent of the Ordinance Approval of modification**.

There are three types of landscape buffers provided for in the Ordinance that collectively provide separation and screening requirements between uses. Recognizing that not every situation can be covered (or anticipated) by these buffers, the Ordinance affords flexibility in buffer design and implementation.

The Site is located on the border of Cabarrus and Rowan County, well outside any City limits. Surrounding the Site are large acreage tracts devoted to industrial, agricultural or vacant uses. Adjacent properties are at least partially wooded, as are the boundaries of the Site. Provision of natural undisturbed meets the intent of the Ordinance by providing denser, faster growing screening, against adjacent uses. As such the alternative buffer yard set forth above meet or exceed the requirements of the Ordinance for visual screening and separation.

Cabarrus County Government – Planning and Development Department

January 19, 2021

Dear Property Owner:

A Zoning Map Amendment Petition has been filed in our office for property **adjacent** to yours. The properties and specifics of the rezoning are listed below. The Cabarrus County Planning and Zoning Board will consider this petition on Tuesday, February 9, 2021 at 7:00 PM in the Cabarrus Room of the Cabarrus Arena & Events Center, located at 4751 NC Highway 49 North, Concord, NC 28025. A Public Hearing will be conducted and public input will be allowed during that time. If you have any comments about the rezoning, I encourage you to attend this meeting.

Petitioner	**Vulcan Lands, Inc.**
Petition Number	**RZON2021-00001**
Property Location	**5300 Gold Hill Road E**
Parcel ID Number	**6603-26-2969**
Existing Zoning	**Office / Institutional (OI)**
Proposed Zoning Map Change	**General Industrial – Conditional Use (GI-CU)**

If you have any questions regarding this petition, or the hearing process, please contact me at Cabarrus County Planning and Development at 704.920.2181.

Sincerely,

Phillip Collins

Phillip Collins, AICP
Senior Planner
Cabarrus County Planning and Development
704.920.2181

Cabarrus County Government – Planning and Development Department

January 19, 2021

Dear Property Owner:

A Zoning Map Amendment Petition has been filed in our office for your property. The specifics of the request are listed below. The Cabarrus County Planning and Zoning Board will consider this petition on Tuesday, February 9, 2021 at 7:00 PM in the Cabarrus Room of the Cabarrus Arena & Events Center, located at 4751 NC Highway 49 North, Concord, NC 28025. A Public Hearing will be conducted and public input will be allowed during that time. If you have any comments about the rezoning request, I encourage you to attend this meeting.

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• **Petition Number**	**RZON2021-00001**
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Sincerely,

Phillip Collins

Phillip Collins, AICP
Senior Planner
Cabarrus County Planning and Development
704.920.2181

Cabarrus County Government

Planning and Development Department • Planning Division

February 1, 2021

To: Adjacent Property Owners

From: Phillip Collins, Senior Planner

CC: File

Re: RZON2021-00001 Vulcan, 5300 Gold Hill Road East

In accordance with state and local laws, informational letters about a proposed rezoning of the property mentioned above (submitted by Vulcan Lands Inc.) were sent out on January 19. The letters were sent to all property owners who own property directly adjacent to the property in question and announced that the request was to be heard at the February 9th meeting of the Planning and Zoning Commission. However, since that time, the applicant found that the outstanding issues with the site plan were too great to have completed in time for the February meeting. Therefore, Vulcan Lands Inc. has requested that the rezoning be tabled until the April 13th meeting of the Planning and Zoning Commission.

The Planning and Zoning Commission will be presented with this tabling request at the February meeting where they will vote to table the matter until the April meeting. As all meetings of the Planning and Zoning Commission are open to the public, you are welcome to attend, but this notification is to inform you that the Vulcan Lands Inc. rezoning request will not be heard at the February meeting.

Thanks,

Phillip Collins

Phillip Collins, AICP
Senior Planner
704.920.2181
pecollins@cabarruscounty.us

Planning and Development

Memo

To: Cabarrus County Planning and Zoning Commission

From: Phillip Collins, Senior Planner

CC: File

Date: February 9, 2021

Re: RZON2021-00001 Vulcan

Vulcan submitted an application for a Conditional Rezoning from OI to GI-CU to allow the expansion of the Gold Hill mining operation onto an adjacent parcel. The property will be used to store materials from the mine.

The applicant is requesting that the case be tabled until the April Planning and Zoning Commission meeting to allow additional time to address outstanding comments related to the site plans.

The case has be advertised, the sign posted and adjacent property owners notified. An updated letter was sent to the adjacent property owners letting them know the applicant is requesting that the case be tabled.

The Planning and Zoning Commission will need to vote to table the meeting until the April meeting or the next available agenda due to COVID-19 regulations and guidelines.

Cabarrus County Government

Planning and Development Department • Planning Division

March 22, 2021

To: Adjacent Property Owners

From: Phillip Collins, Senior Planner

CC: File

Re: RZON2021-00001 Vulcan, 5300 Gold Hill Road East

The purpose of this memo is to update you on the rezoning request from Vulcan for 5300 Gold Hill Road East which is adjacent to your property. The Planning and Zoning Commission will be presented with the rezoning request at its April 13 meeting. The meeting will begin at 6:30 pm in the Cabarrus Room of the Cabarrus Arena & Events Center, located at 4751 NC Highway 40 North, Concord NC 28025. The meeting is open to the public and you are welcome to attend. If you have questions, you may contact me at the contact information given below.

Thanks,

Phillip Collins

Phillip Collins, AICP
Senior Planner
704.920.2181
pecollins@cabarruscounty.us

Cabarrus County Government – Planning and Development Department

March 24, 2021

Dear Property Owner:

A Zoning Map Amendment Petition has been filed in our office for property **adjacent** to yours. The properties and specifics of the rezoning are listed below. The Cabarrus County Planning and Zoning Board will consider this petition on Tuesday, April 13, 2021 at 6:30 PM in the Cabarrus Room of the Cabarrus Arena & Events Center, located at 4751 NC Highway 49 North, Concord, NC 28025. A Public Hearing will be conducted and public input will be allowed during that time. If you have any comments about the rezoning, I encourage you to attend this meeting.

Petitioner	**Vulcan Lands, Inc.**
Petition Number	**RZON2021-00001**
Property Location	**5300 Gold Hill Road E**
Parcel ID Number	**6603-26-2969**
Existing Zoning	**Office / Institutional (OI)**
Proposed Zoning Map Change	**General Industrial – Conditional Use (GI-CU)**

If you have any questions regarding this petition, or the hearing process, please contact me at Cabarrus County Planning and Development at 704.920.2181.

Sincerely,

Phillip Collins

Phillip Collins, AICP
Senior Planner
Cabarrus County Planning and Development
704.920.2181

PROPERTY OWNER
6603262969
VULCAN LANDS INC
1200 URBAN CENTER DR
VESTAVIA, NC 35242

383 032 CAROLINA STALITE COMPANY PO BOX 1037 SALISBURY, NC 28145	6603058671 CARPENTER DONALD F 5201 GOLD HILL RD E GOLD HILL, NC 28071	6603192311 GARY & AMY RINEHARDT 2468 TWELVE OAKS RD CONCORD, NC 28025
6603067024 JASON & REBECCA CLINE 5301 GOLD HILL RD E GOLD HILL, NC 28071	6604104069 JOHN & ERIN FERRANTE 1233 PRESSLEY DOWNS DR SE CONCORD, NC 28025	6603180236, 6603171916 & 6603078330 JON & BARBARA JACKSON 5450 GOLD HILL RD E GOLD HILL, NC 28071
6603089746 KESLER ALLAN L 5650 GOLD HILL RD E GOLD HILL, NC 28071	5693962823 DARYL PHILEN & KAREN KIEFFER PO BOX 1499 MT PLEASANT, NC 28124	6603255518 PIGGOTT DIONNE M 644 S MADISON ST EDEN, NC 27288
6603191674 RAUL & MONICA RAMIREZ 14816 BAYTOWN CT HUNTERSVILLE, NC 28078	6603471878 & 6603392318 YOUNG MARTHA H LF EST 5250 MASONS FERRY RD LAKE WYLIE, SC 29710	*6603450236 LARRY WAYNE WHITLEY 15103 SHORT CUT RD GOLD HILL RD E
*6604003208 ROBERT L STADLER 6050 GOLD HILL RD E GOLD HILL, NC 28071	*6603072261 SPARKLE PROPERTIES LLC 2175 GOLD KNOB RD SALISBURY, NC 28146	*6603152752 CESAR DAVID HURTADO ESQUEDA & YESENIA RANGEL 5171 GOLD HILL RD E GOLD HILL, NC 28071

**addresses initially missed but added and letters sent on March 24 for April meeting*

Jan 21, 2021 at 9:38:09 AM
Gold Hill Rd E, Cabarrus



Vulcan Materials Company

Conditional Use Rezoning Request

Johnston Allison Hord
1065 E. Morehead Street
Charlotte, NC 28204
www.jahlaw.com

JOHNSTON ALLISON HORD
START HERE

Background / History

- Gold Hill Quarry has been in existence since 1953 and operated by Vulcan since 1988
- Safely and responsibly supplying crushed stone to build roads, bridges, homes, schools, churches, etc. in the community
- Unique geology supplies Carolina Stalite who produces quality lightweight aggregate that ships worldwide
- Certified Wildlife Habitat Conservation Projects with the Wildlife Habitat Council
- Wildlife & Industry Together (WAIT) certification with the NC Wildlife Federation
- Regulated by numerous Federal, State, and Local agencies including North Carolina Department of Environmental Quality, U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers and includes this site.
- Actively involved in the local and surrounding communities through charitable and in-kind contributions and supporting earth science education along with career exploration

- Applicant Vulcan Lands, Inc.
- Conditional Use Rezoning
- Approximately 138 acres
- Generally between Gold Hill Road E and its existing Gold Hill Quarry ("Site").
- Limited to Overburden Storage from adjacent Gold Hill Quarry operations.

What is Overburden Storage?

Overburden is the dirt, material, etc. removed during the excavation (mining) process. In other words, the byproduct that is dug up during the process of creating and expanding mining pits. Without Overburden Storage, trucks would have to haul this byproduct off-site

What do Overburden Storage Areas look like?

Overburden Storage Areas consist of plateaus or berms of overburden that are then vegetated with ground cover and left to be reclaimed by nature and surrounding wildlife.

Overburden Storage will not exceed 40 feet in height; lower than the perimeter tree line along most areas of the Site.

Examples of OVB Storage – Macon, Georgia







Examples of OVB Storage – Stafford, Virginia







Examples of OVB Storage – Rockingham, North Carolina

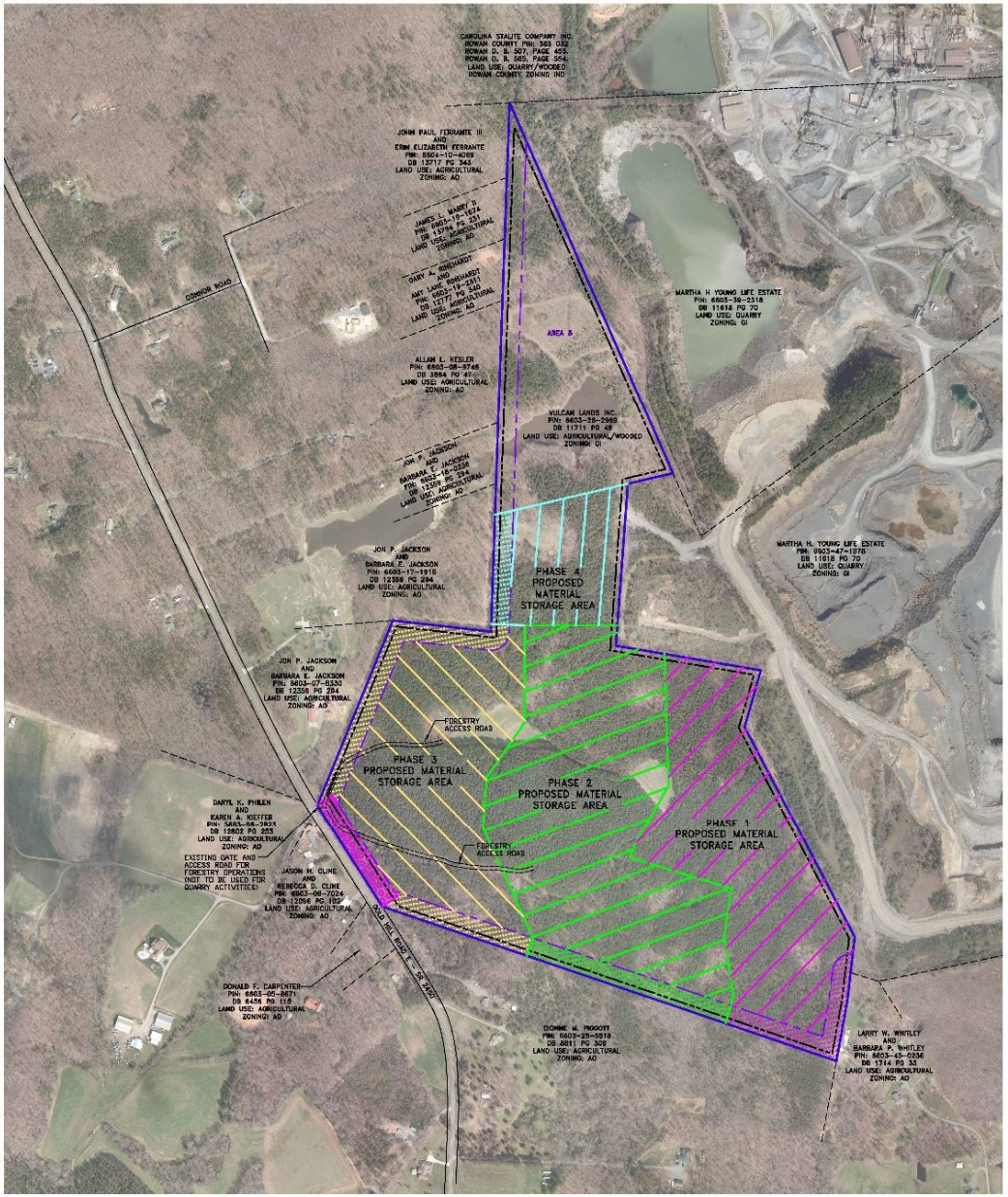




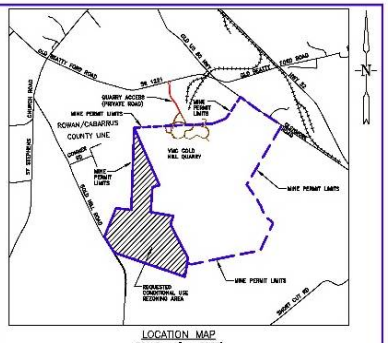




Site Map Showing Phased Areas



Vulcan proposes a 100 foot wide buffer consisting of existing vegetation around the non-quarry perimeter of the Site.



LOCATION MAP
SCALE : 1" = 2000'

SHEET LEGEND

SITE MAP	SHEET 1	PHASE 2 GRADING PLAN	SHEET 11
SITE DEVELOPMENT NOTES	SHEET 2	PHASE 3 GRADING PLAN	SHEET 12
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PHASE 1 GRADING PLAN	SHEET 10	DETAILS	SHEET 20

MINE LEGEND

SITE DATA:

PROPERTY INFORMATION:	PIN: 6603-26-2969
PROPERTY ADDRESS:	5300 GOLD HILL RD E
DEED REFERENCE:	DEED BOOK 11711 PAGE 48
TOTAL AREA:	138.388 ACRES (6,028,181 SF)
OWNER:	VULCAN LANDS INC. 1200 URBAN CENTER DR BIRMINGHAM, AL 35242 336-767-4600
CURRENT ZONING:	GI (OFFICE/INSTITUTIONAL)
PROPOSED ZONING:	GI-CU (GENERAL INDUSTRIAL – CONDITIONAL USE)
CURRENT LAND USE:	AGRICULTURAL/WOODED
PROPOSED LAND USE:	MATERIAL STORAGE OF EARTH PRODUCTS (QUARRY), FORESTRY (AGRICULTURE)
PROPOSED BUILDINGS:	NONE
FRONT SETBACK:	75 FEET
REAR/SIDE SETBACK:	30 FEET
APPLICANT:	VULCAN MATERIALS COMPANY 4401 NORTH PATTERSON AVE. WINSTON SALEM, NC 27105 336-767-4600
CIVIL ENGINEER:	G. WESLEY WEBB, PE ALLEY, WILLIAMS, CARMEN & KING, INC. 120 SOUTH MAIN STREET KANNAPOLIS, NC 28081 704-938-1515

NORTH CAROLINA PROFESSIONAL SEAL 16883 ENGINEER G. WESLEY WEBB
12-18-20

Vulcan Materials Company

alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET
KANNAPOLIS, NC 28082
P.O. BOX 1248
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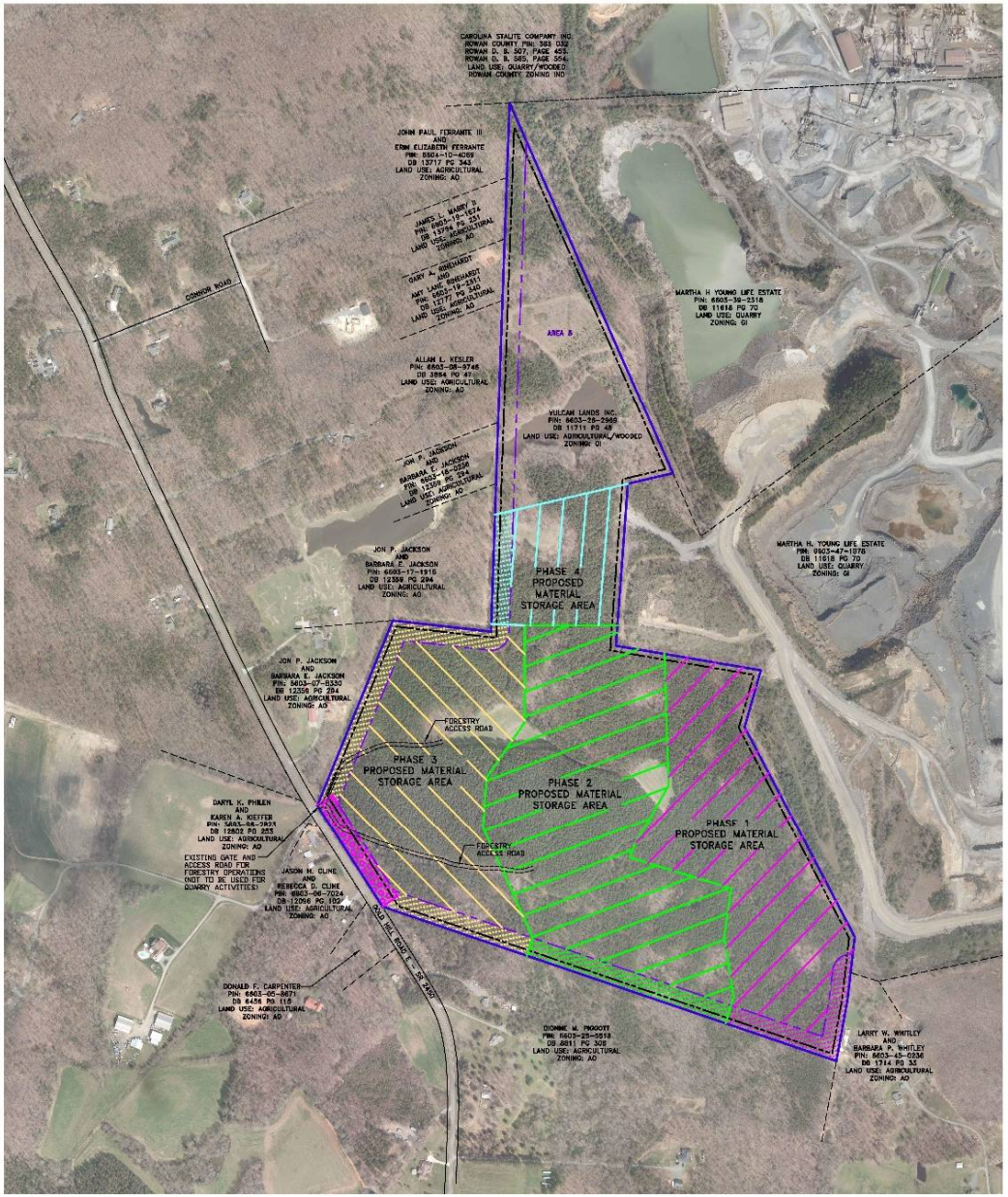
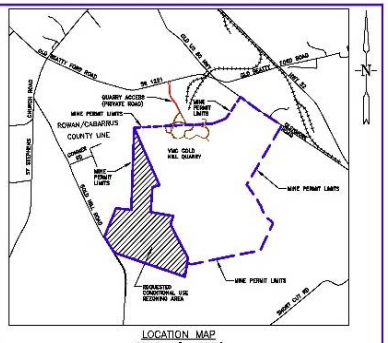
SITE MAP

JOB NO. 11526
SHEET NO. 1
OF 20

Site Map Showing Phased Areas



The Site is phased 1 – 4. Area 5 will not be used for overburden storage and, except for timbering, will be left in its natural state.



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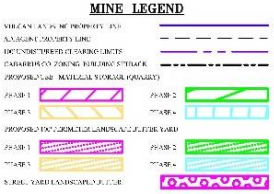

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JOB NO. 11526
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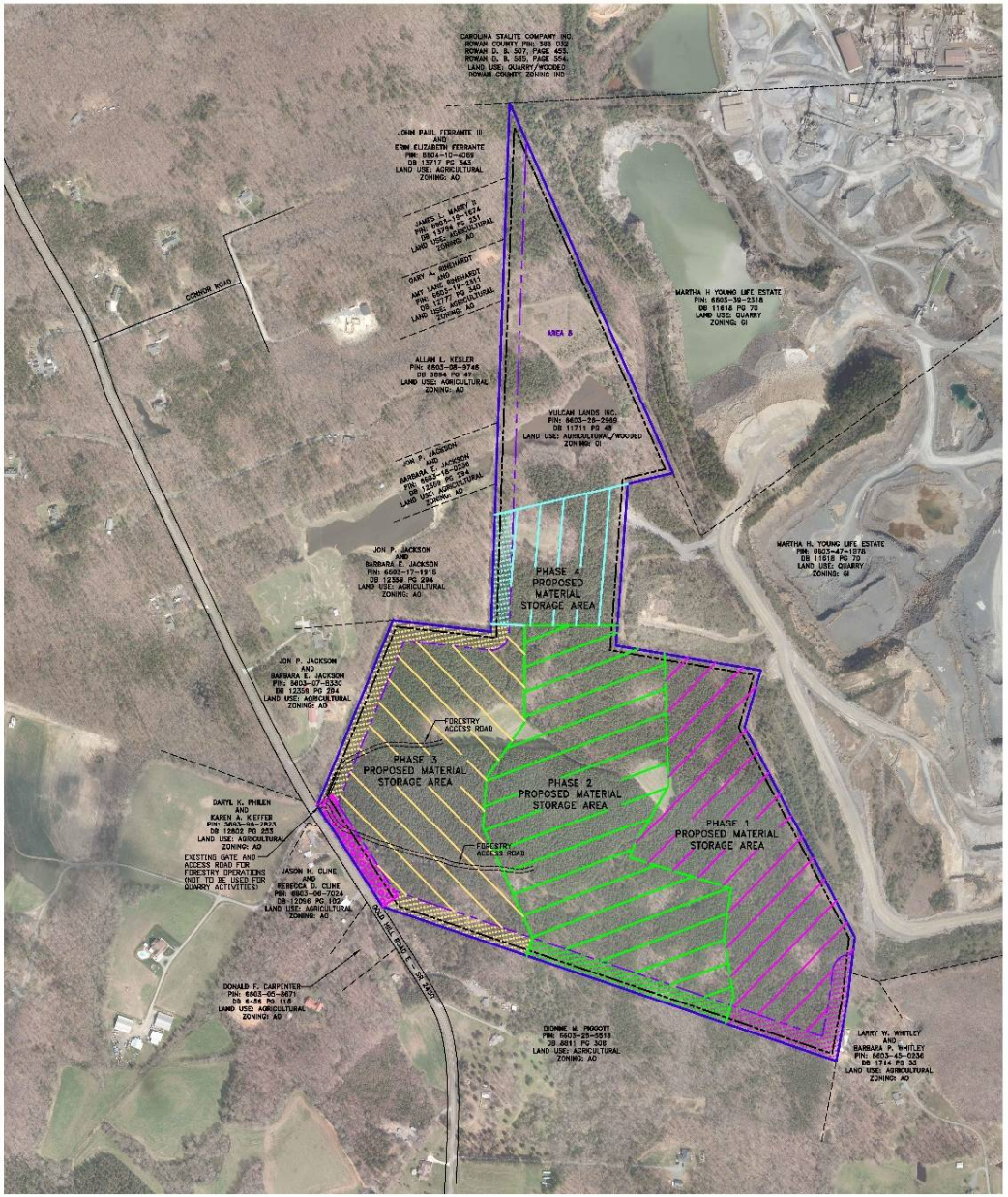
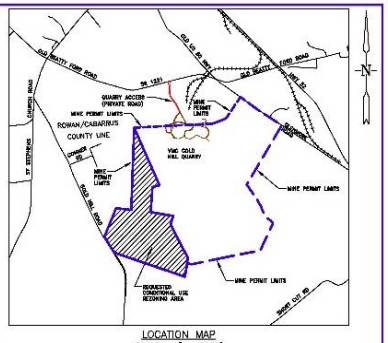


Prior to commencing operations in each phase, Vulcan and staff will review existing vegetation to ensure the buffer for each phase provides adequate visual screening and separation.



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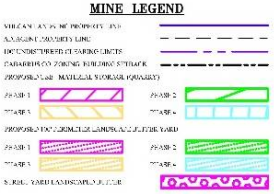

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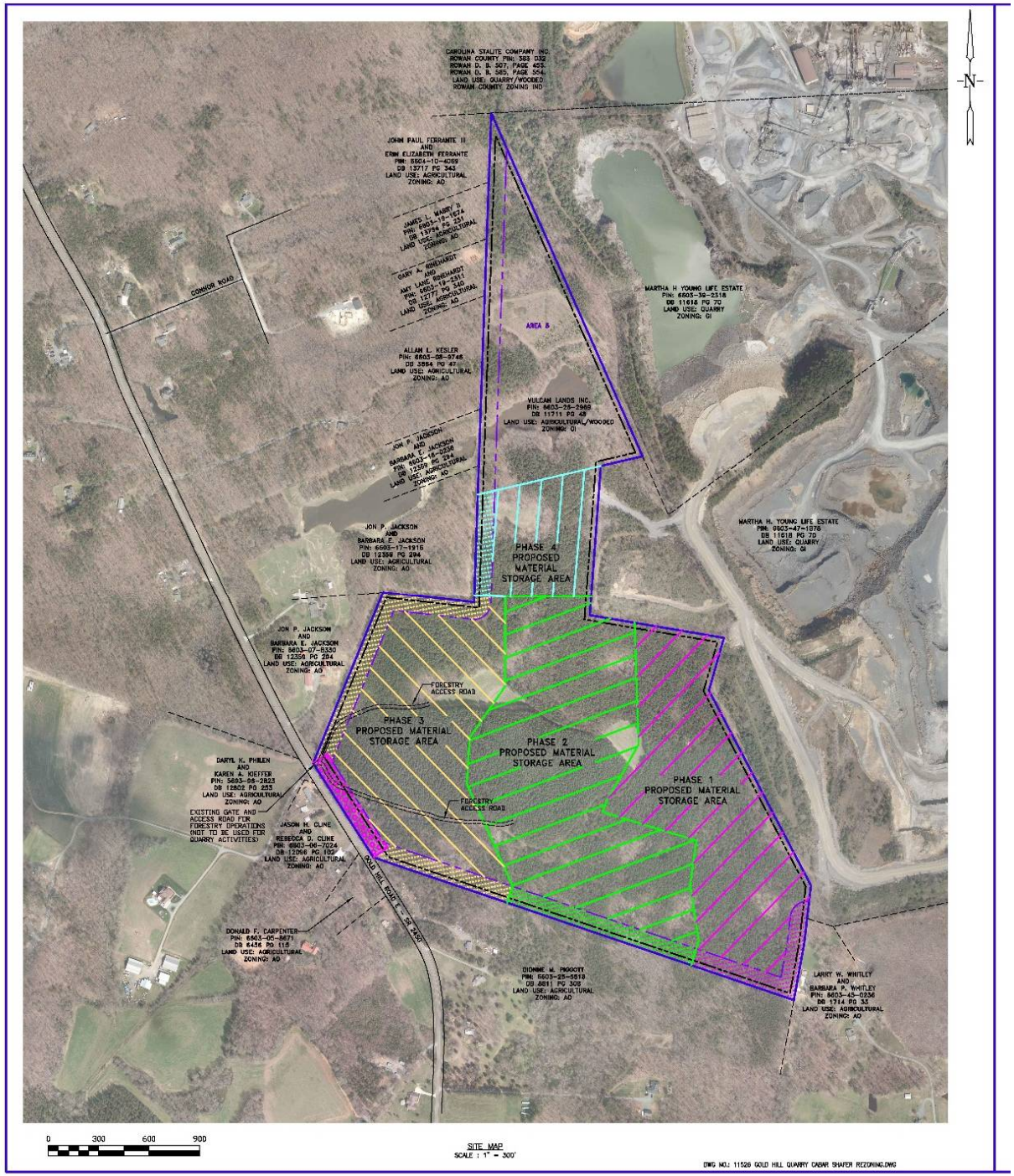
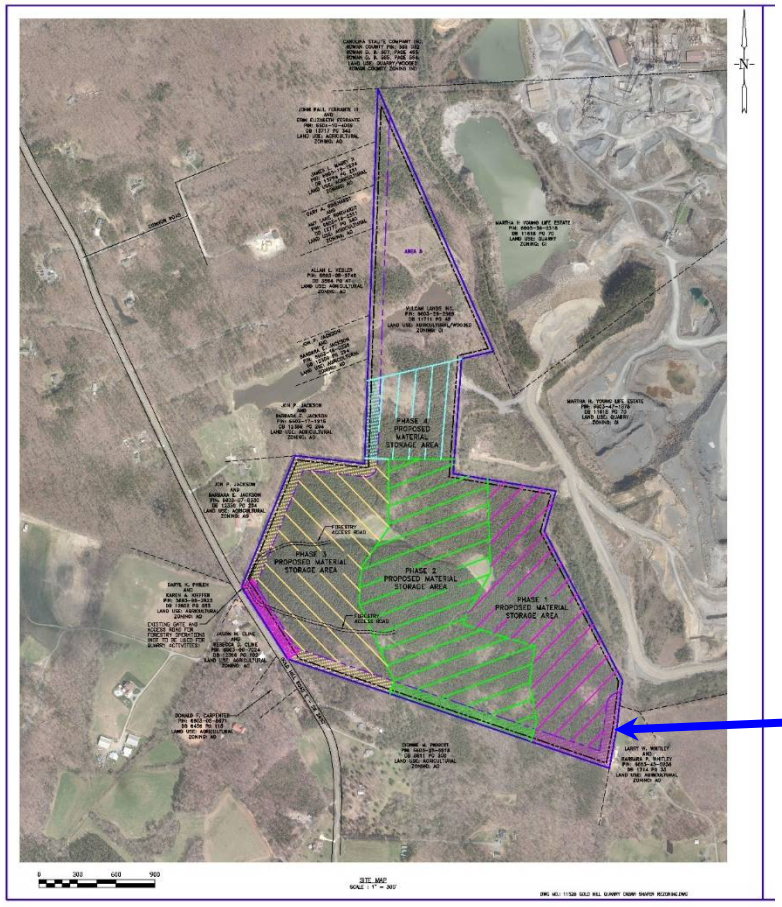
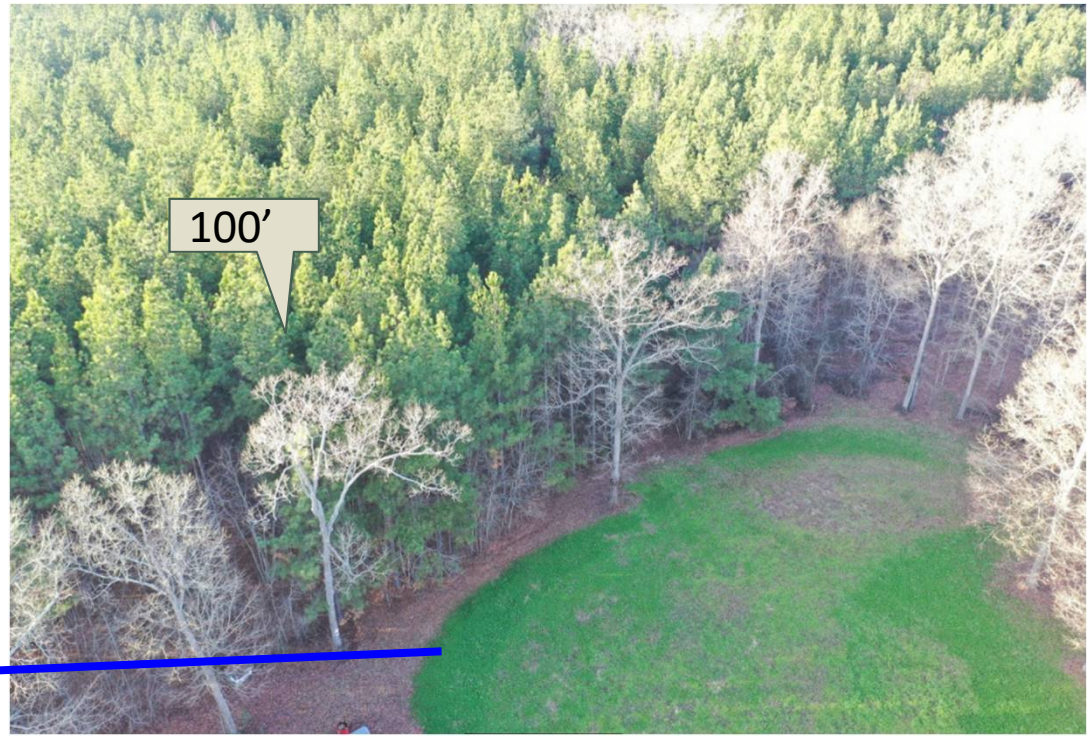
Existing Vegetation will be used to screen what, post development, will remain a natural area.

Essentially Vulcan proposes buffering a buffer.



Gold Hill Site Line Picture Locations





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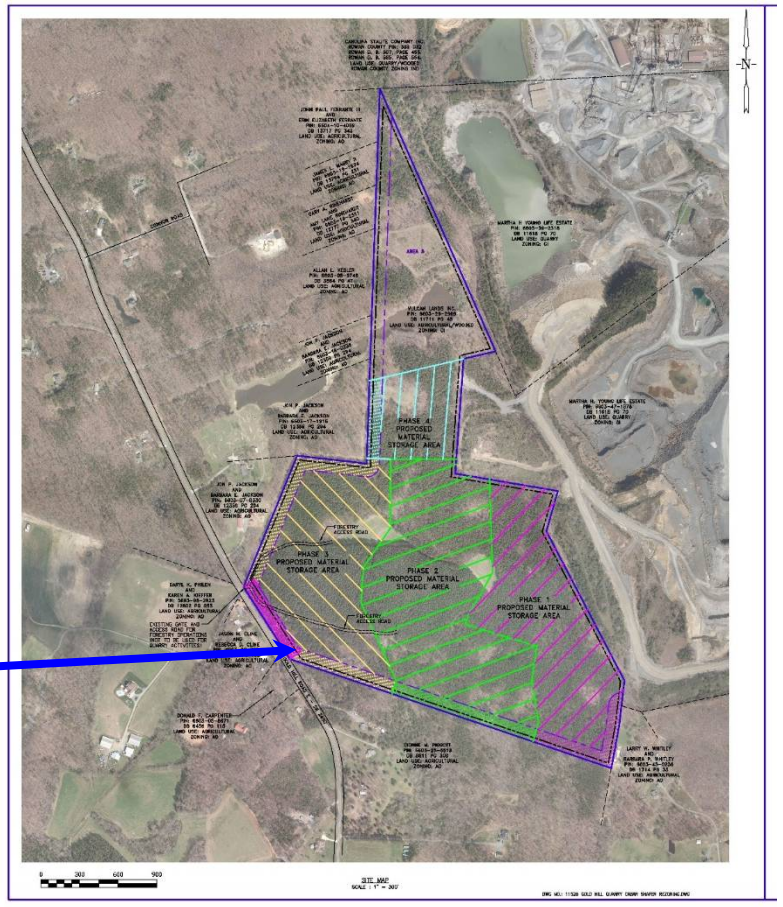

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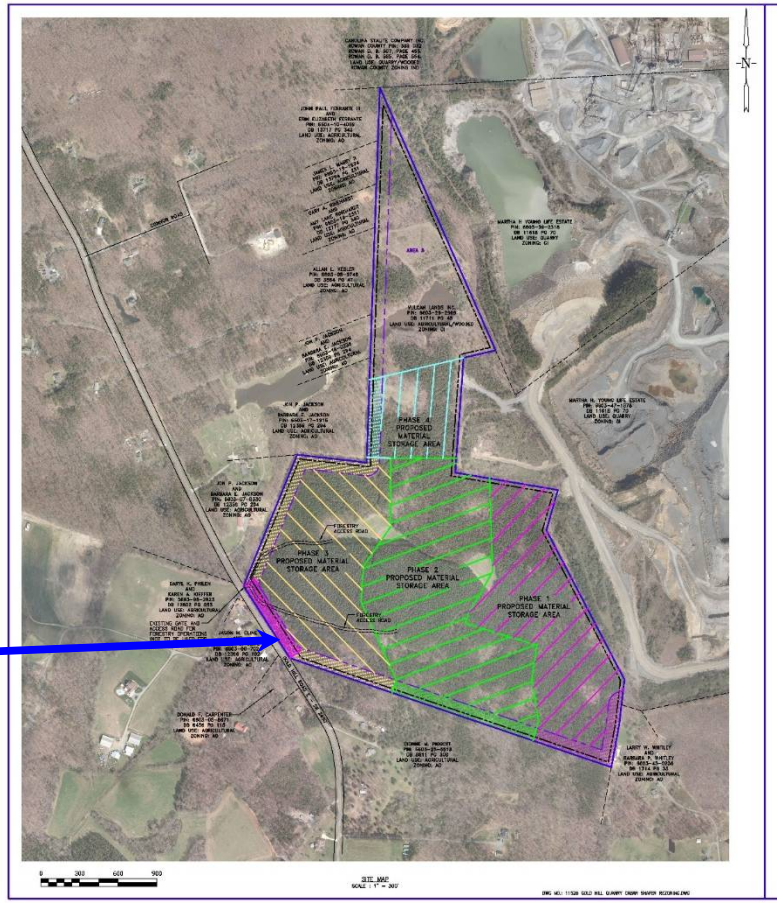

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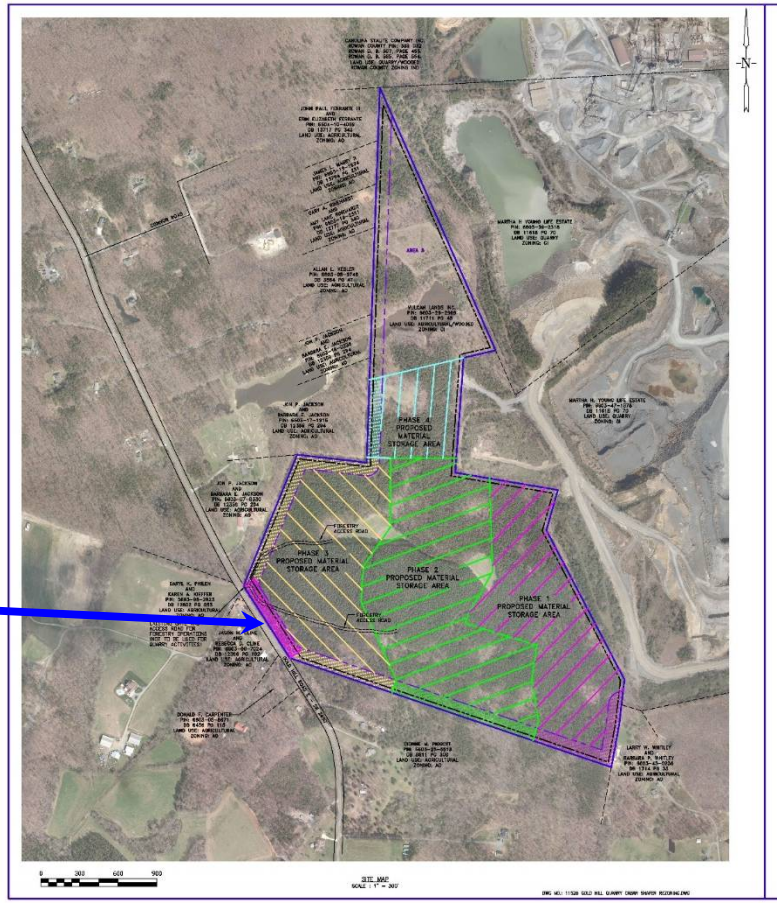

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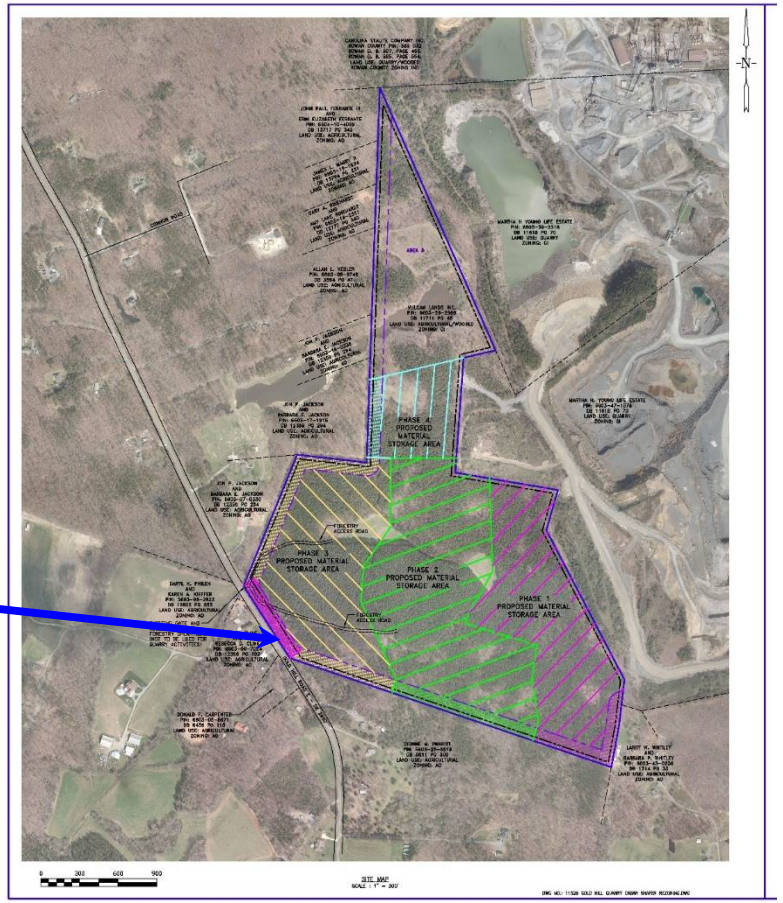

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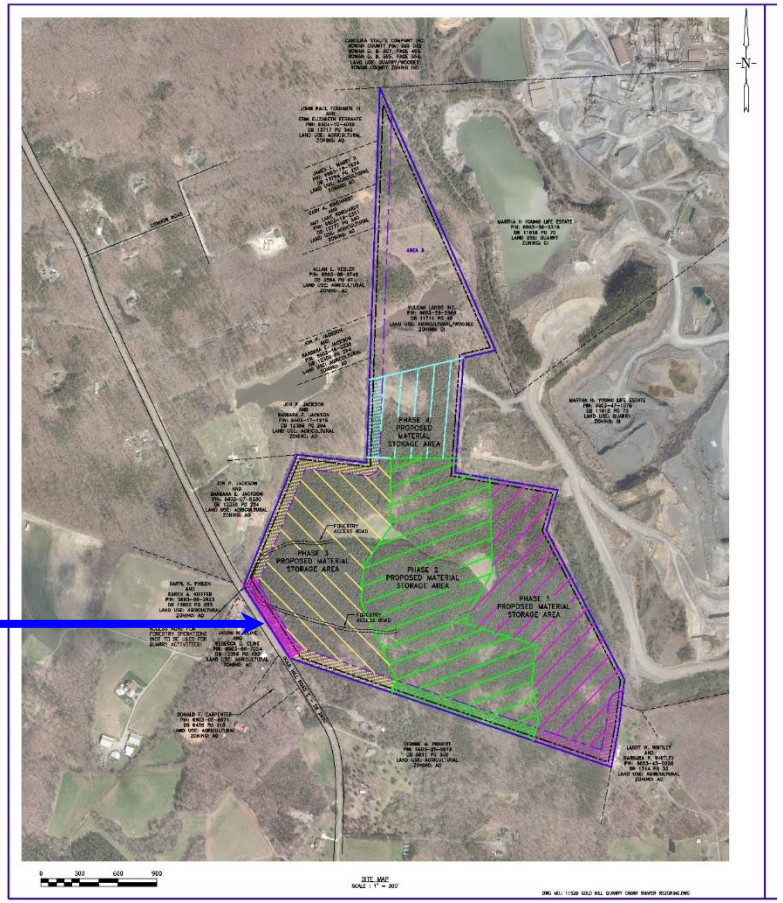

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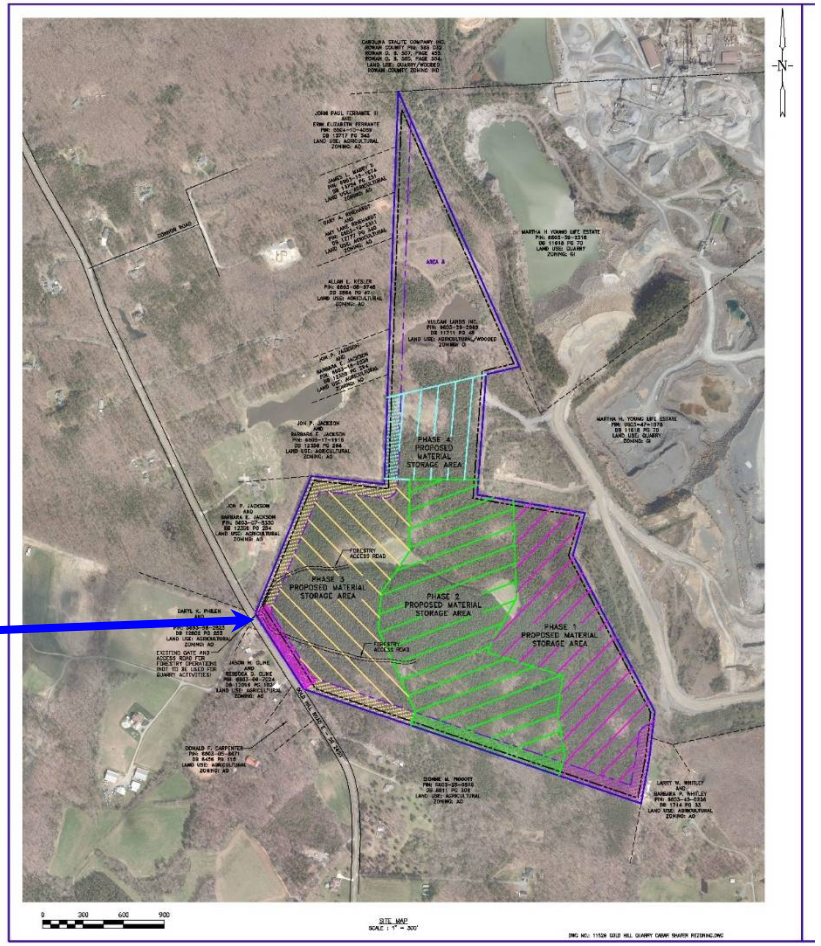

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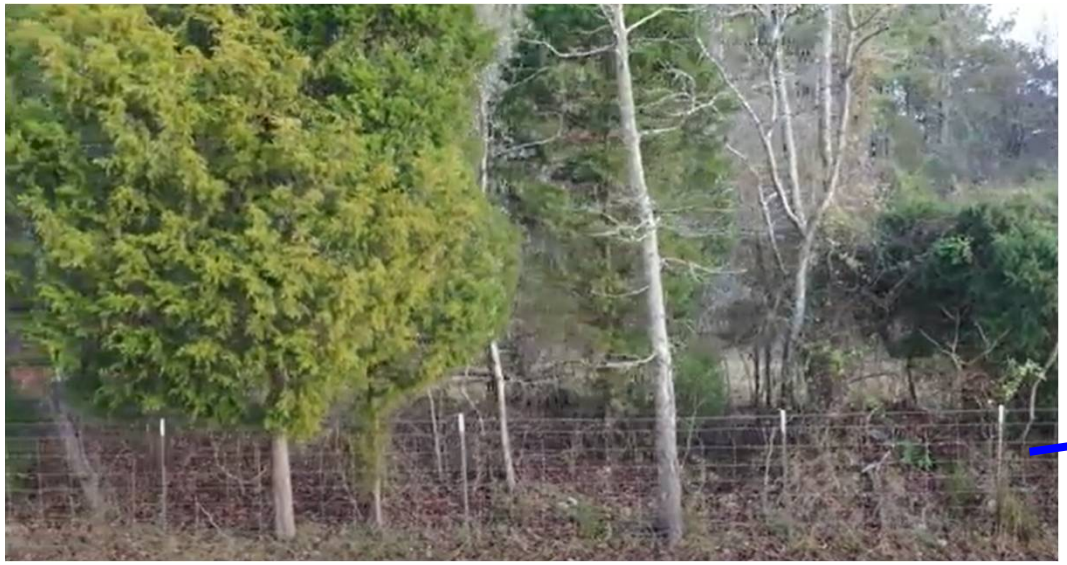

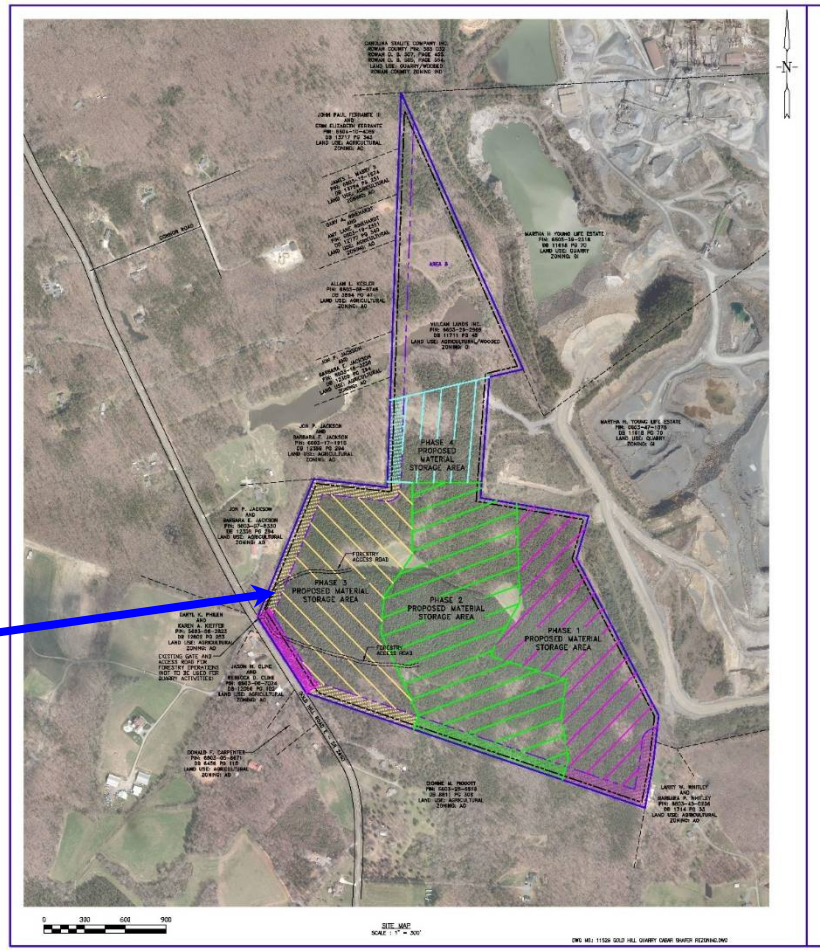

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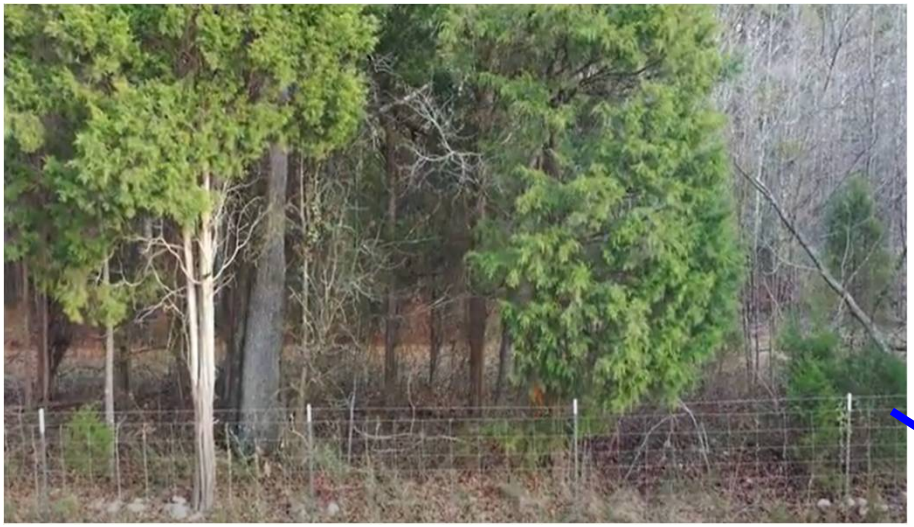



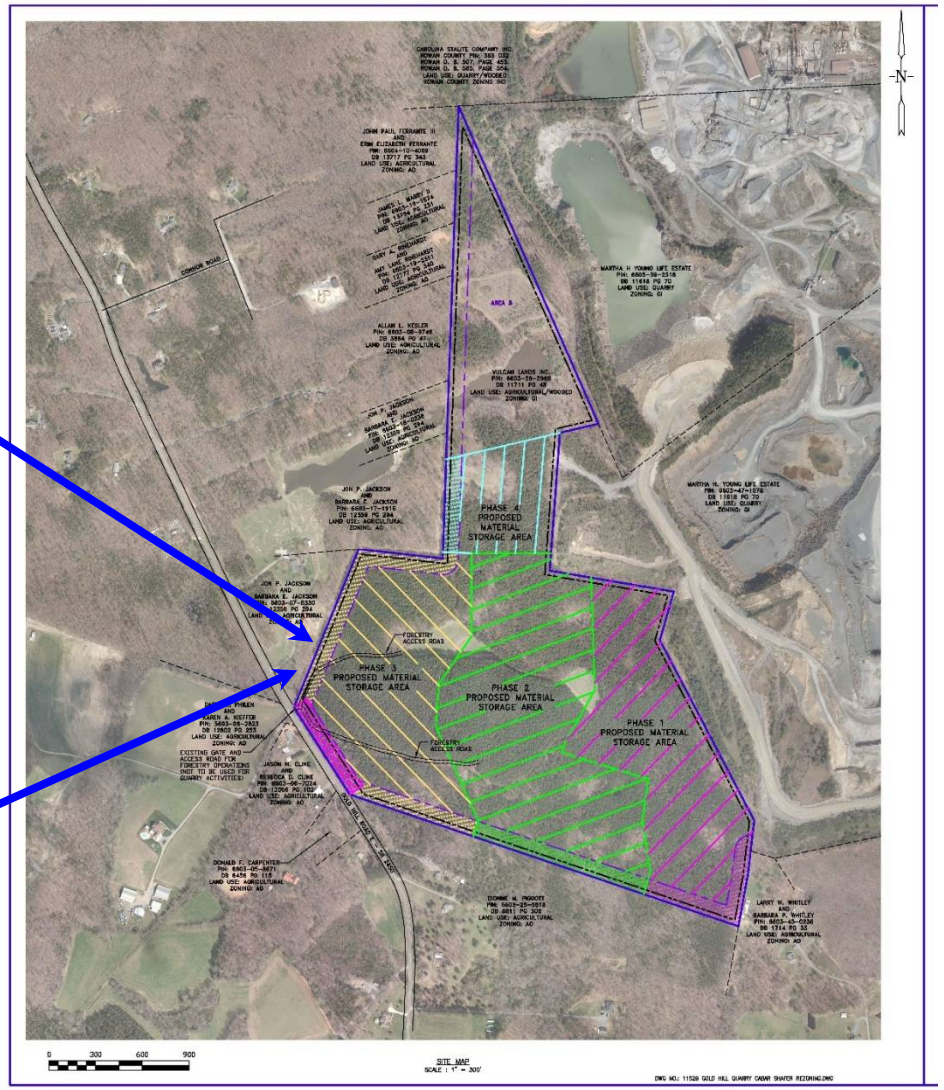

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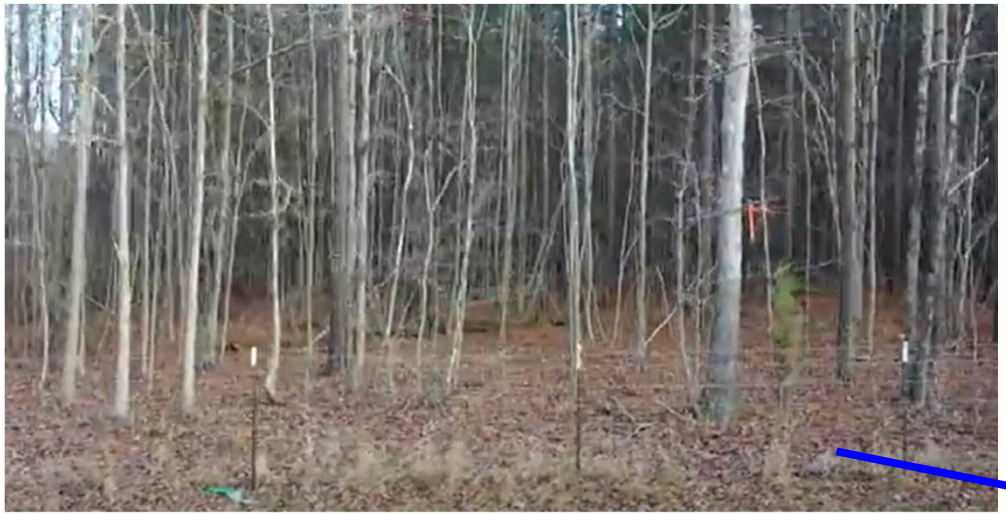

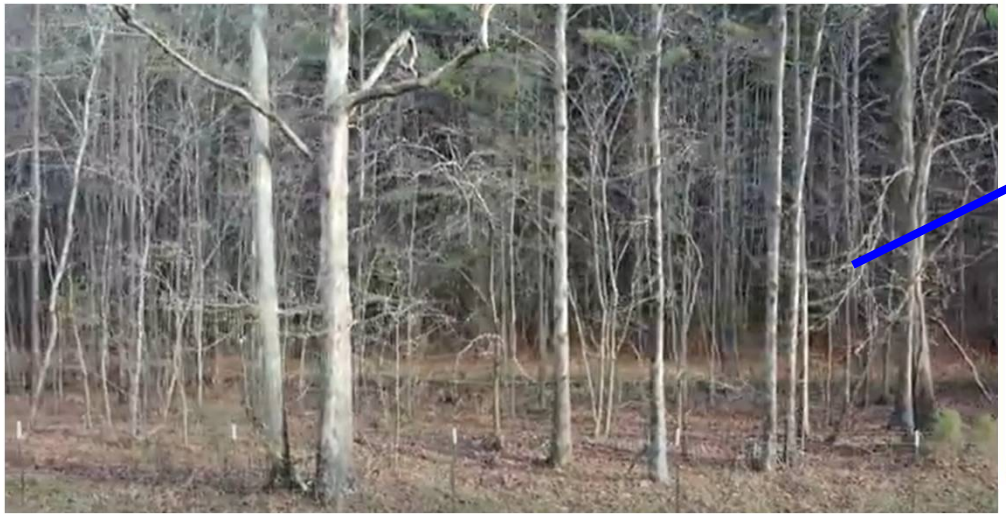

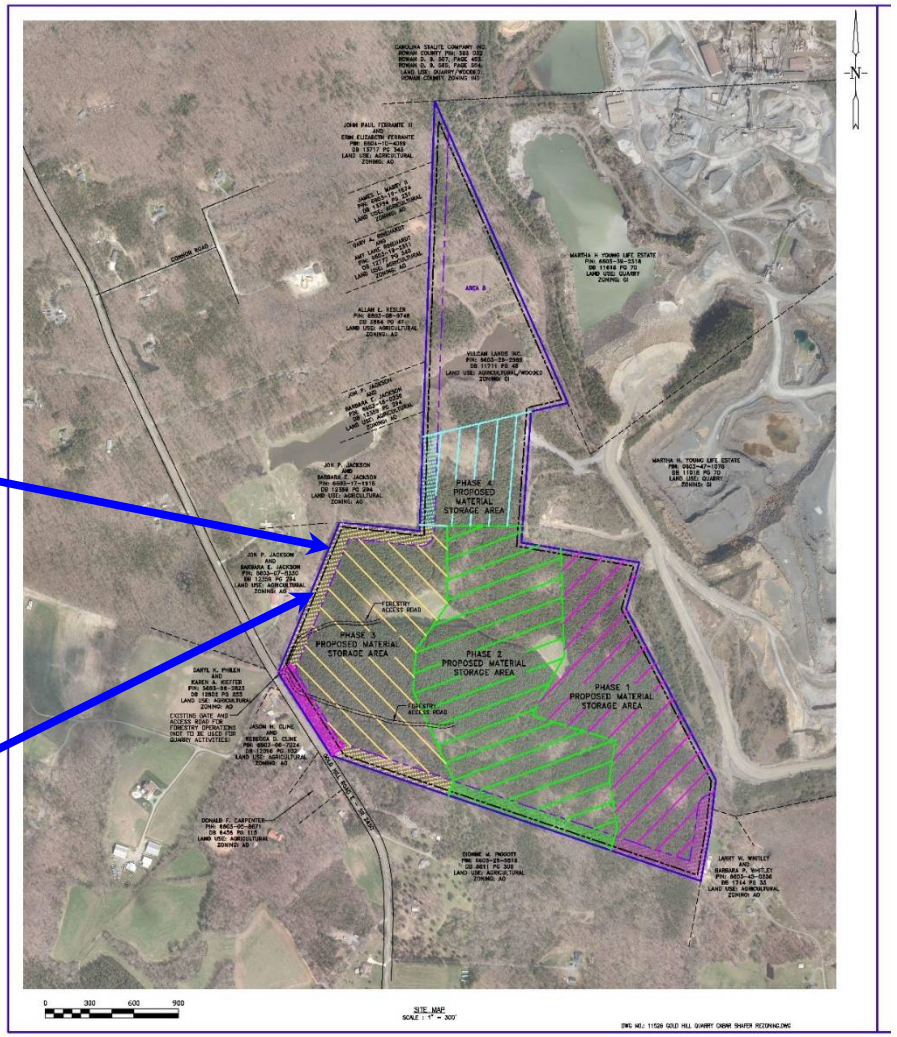

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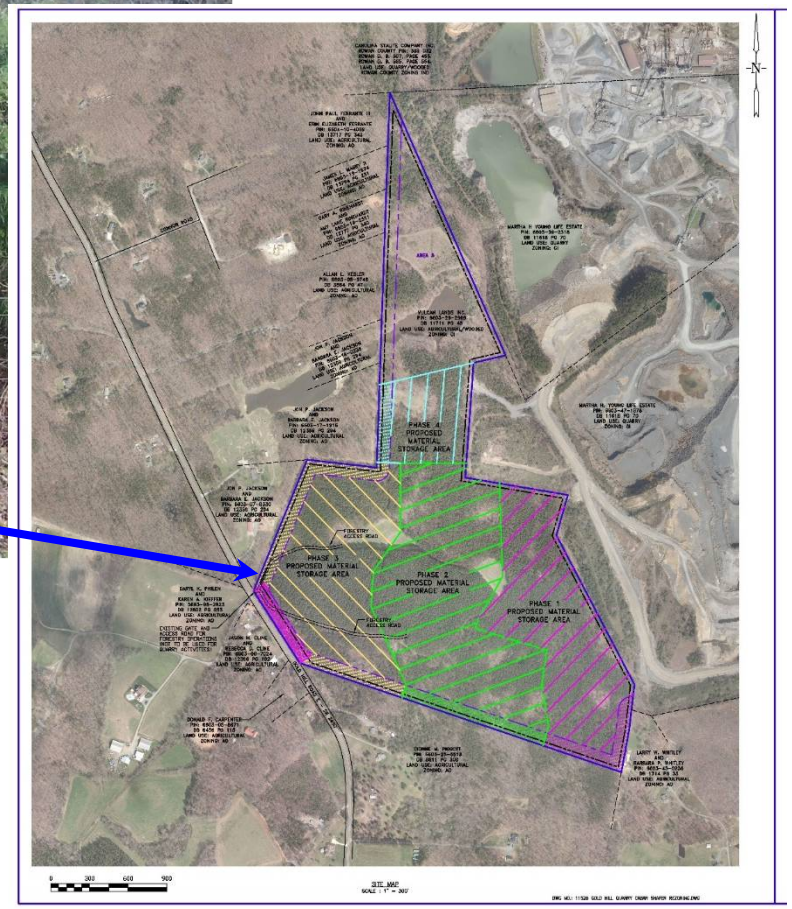

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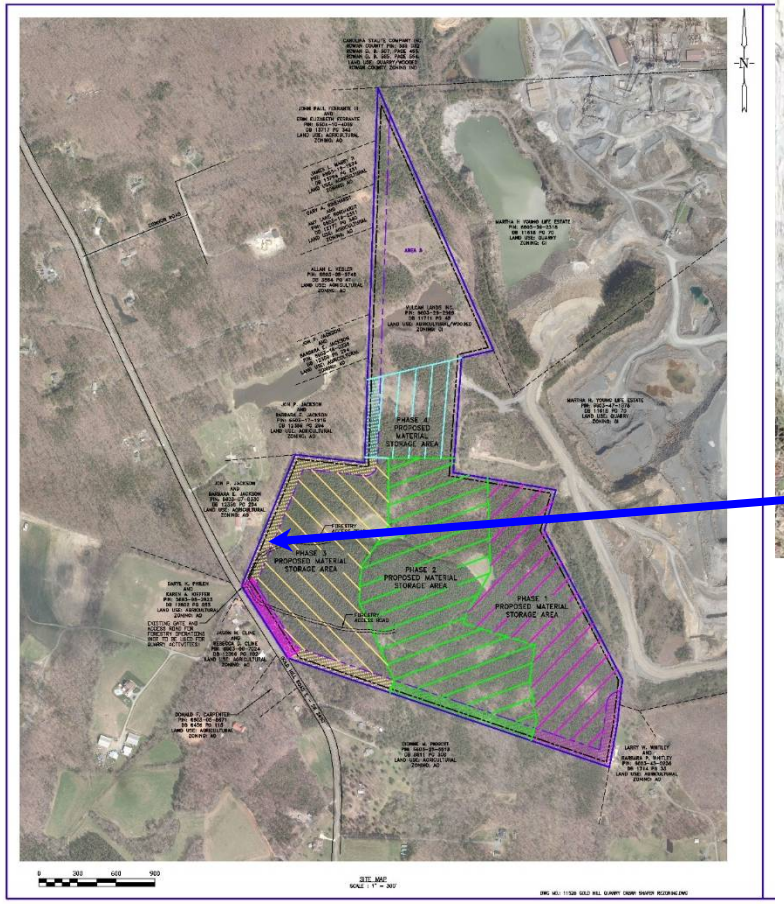



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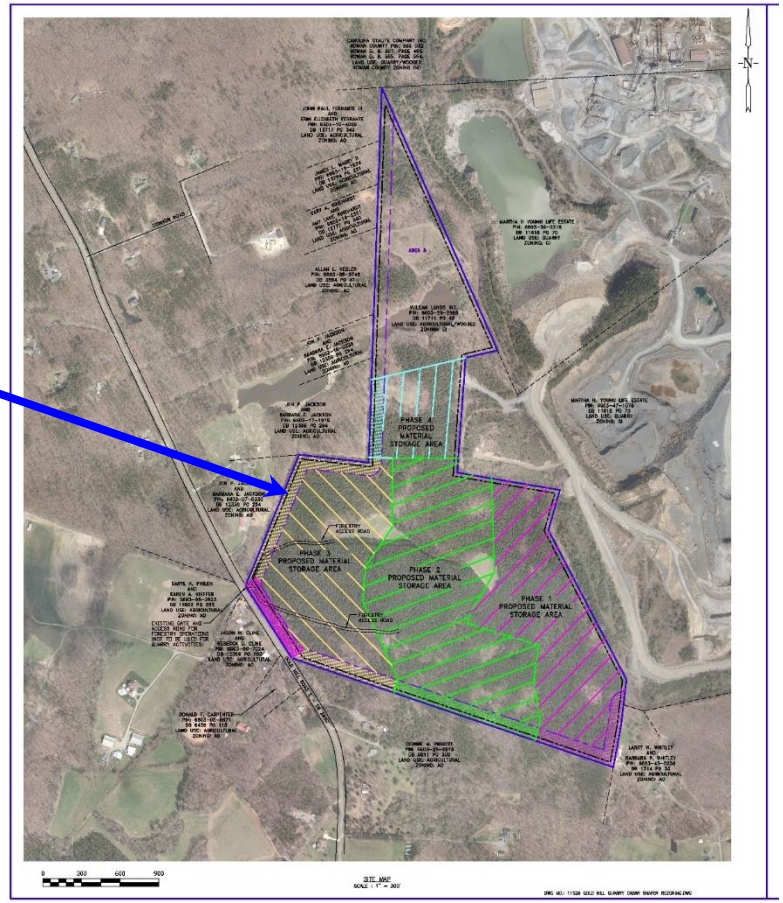


In Summary…

- No blasting or extraction of products
- No structures on the site
- No commercial access from East Gold Hill Road
- Commercial access to site through adjacent quarry property
- Reduces truck traffic to and from the Site necessary to haul overburden off site

Any Questions??

JOHNSTON ALLISON HORD
START HERE

Contact Information

Susanne Todd
Johnston Allison Hord
1065 E. Morehead Street
Charlotte, NC 28204
704 998-2306 Direct
stodd@jahlaw.com
www.jahlaw.com

Denise Hallett
Manager, Community and Government Relations
Vulcan Materials Company
Mideast Division
336 744-2919 Direct
704 560-5304 Cell
Hallettd@vmcmail.com

Thank You

JOHNSTON ALLISON HORD
START HERE

Planning

Memo

To: Planning and Zoning Commission, Acting as Board of Adjustment

From: Susie Morris, Planning and Zoning Manager

cc: File

Date: 6/1/2021

Re: NC 102 Project Close-Out Update

Mr. Jansen has been in communication with Staff regarding the outstanding issues at the NC102 Project site and an update has been provided (see attached).

An engineering study was conducted by Stantec regarding the close-out of the basins. The report includes recommendations for moving forward. The document will need to be reviewed by the County Engineer and by NCDEQ for concurrence with the recommendations.

Part of the landscape has been installed (pine seedlings). Additional landscape in Canada and South America needs to be installed. Staff will conduct an inspection once all of the landscape has been installed.

More time is needed for the engineering study to be reviewed for concurrence and for the remaining landscape to be installed and inspected. Canadian Solar is requesting that the item be tabled until August.

NC 102 Solar Facility Update Report

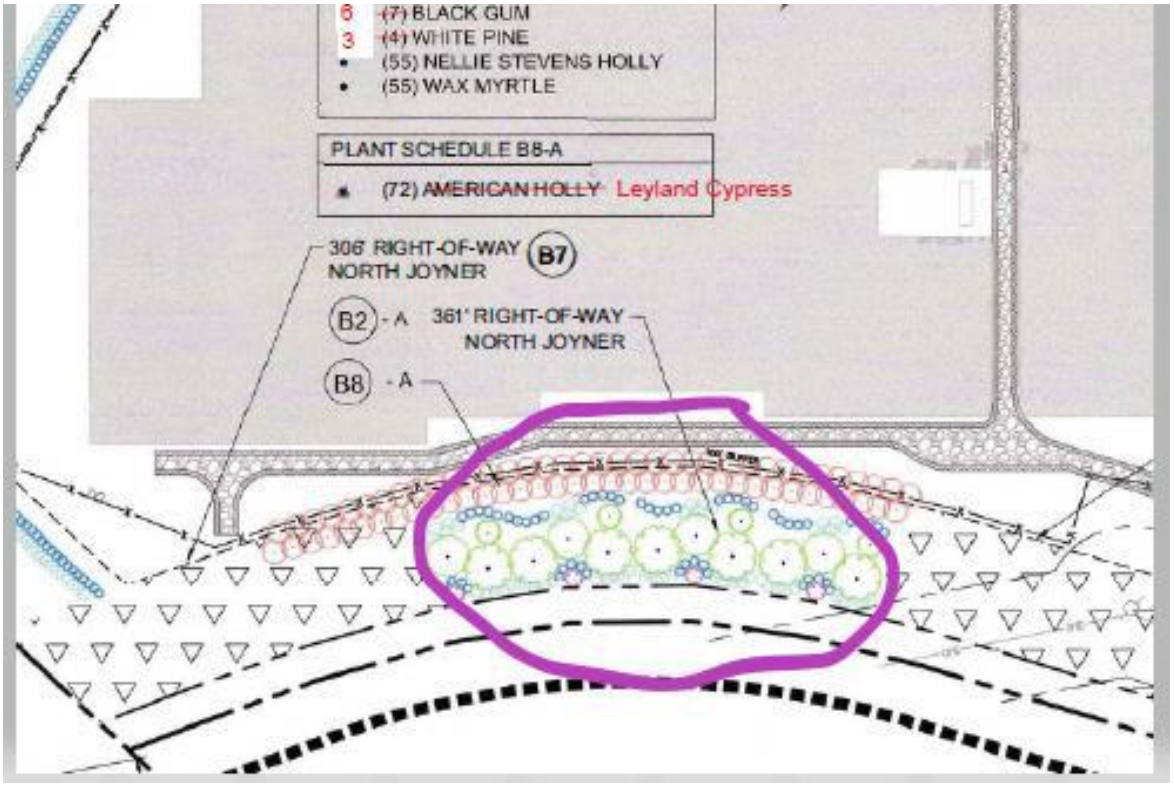
May 29, 2021

At this time the NC 102 Solar Facility continues to work towards closing out the remaining Landscaping ad site stabilization items which were presented in a memo dated December 14, 2020, titled “Planning and Zoning Commission Committee Member Site Visit- December 2, 2020”. The project has completed the replanting and flagging of seedlings within the Stream/Wetland Body Buffers. The additional planting along Joyner Road and at the Horse Corral will be completed in the week of June 7, 2021. The site stabilization work is scheduled to be completed the week of June 21, 2021.

This memo suggested the following action items:

1. B2-A Supplemental Buffer

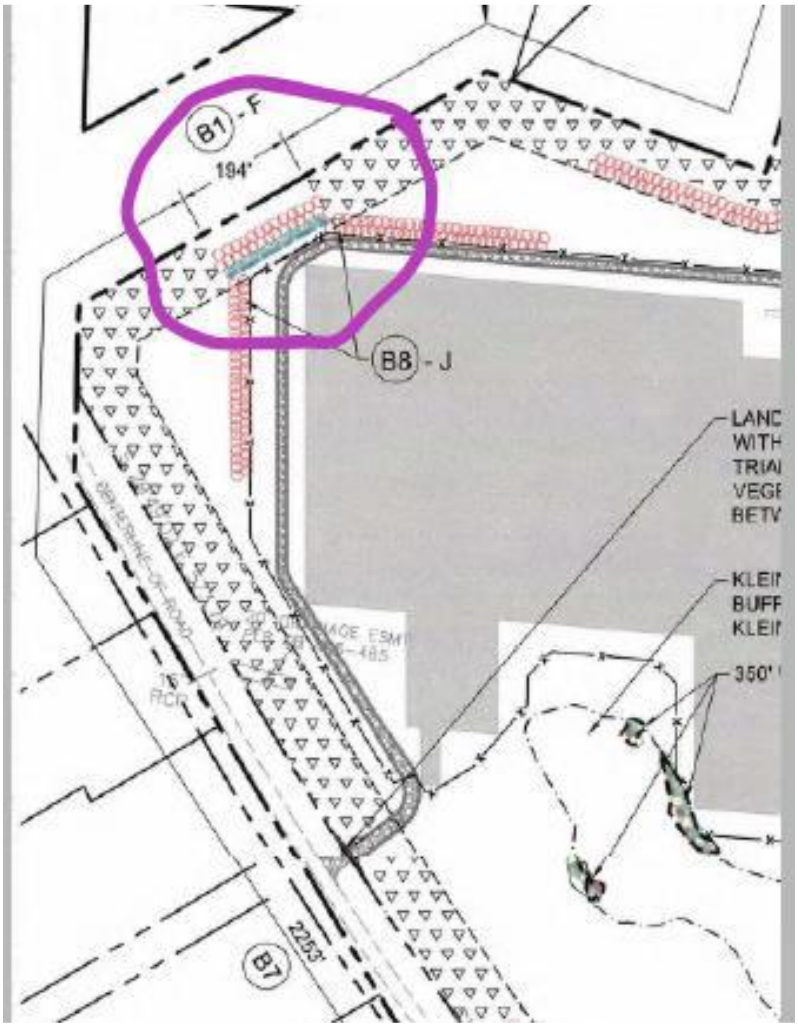
The gap area along Joyner Road needs to be planted. The Committee is willing to allow plantings that are consistent with the existing Loblolly Pine buffer to be substituted for the plantings shown on the plan. CCSWCD Staff recommends these be planted at 8 x 10 spacing.



NC 102 will plant 30 additional American Holly at a height of 10 feet in this gap area. This will supplement the previous planting done against the fence line. To be completed week of June 7, 2021

2. B8-J Elective Understory Tree Buffer

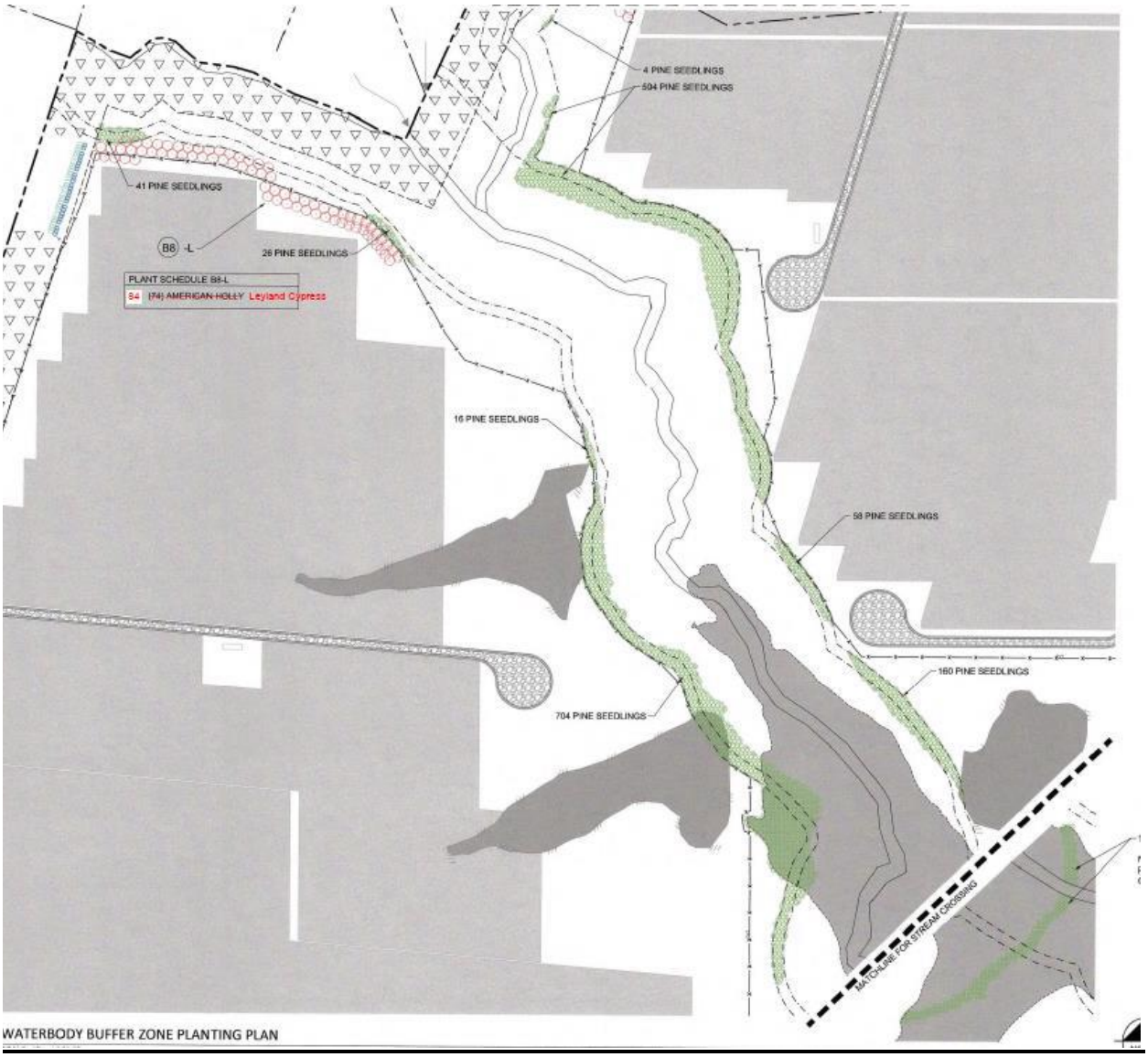
Left side of access road where house is adjacent to fence. This area needs to be planted a minimum of 60 feet on either side of the corner post. The Committee is willing to allow additional Leyland Cypress to be used in this area to create an evergreen buffer for the residential property. Plantings should be installed interior to the fence on the solar farm side to allow appropriate room for growth.



NC 102 will plant 32 additional Leyland Cypress at a height of 8 to 10 feet along the interior of the fence line. To be completed week of June 7, 2021.

3. Stream/Wetland and Floodplain Restoration Areas – Green areas on plan

Additional evidence needs to be provided that the pine seedlings were planted in accordance with the planting schedule throughout the entire restoration area. Plantings should be flagged, and a series of photos provided for the green areas shown on the plan above. The Committee would like for county staff members to visit the site once the plants are flagged in all the stream/floodplain restoration areas to confirm planting at the proper density and per the approved CCSWCD Restoration Plan.



NC 102 has replanted 1725 Loblolly Seedlings these areas and has flagged all replanted trees plus added flags to previously planted seedlings. In total approximately 2500 flags have been deployed. Evidence of this work is provided in the series of photographs attached.

Stream/Wetland Buffer Restoration.

























4. South America Drainage Basins

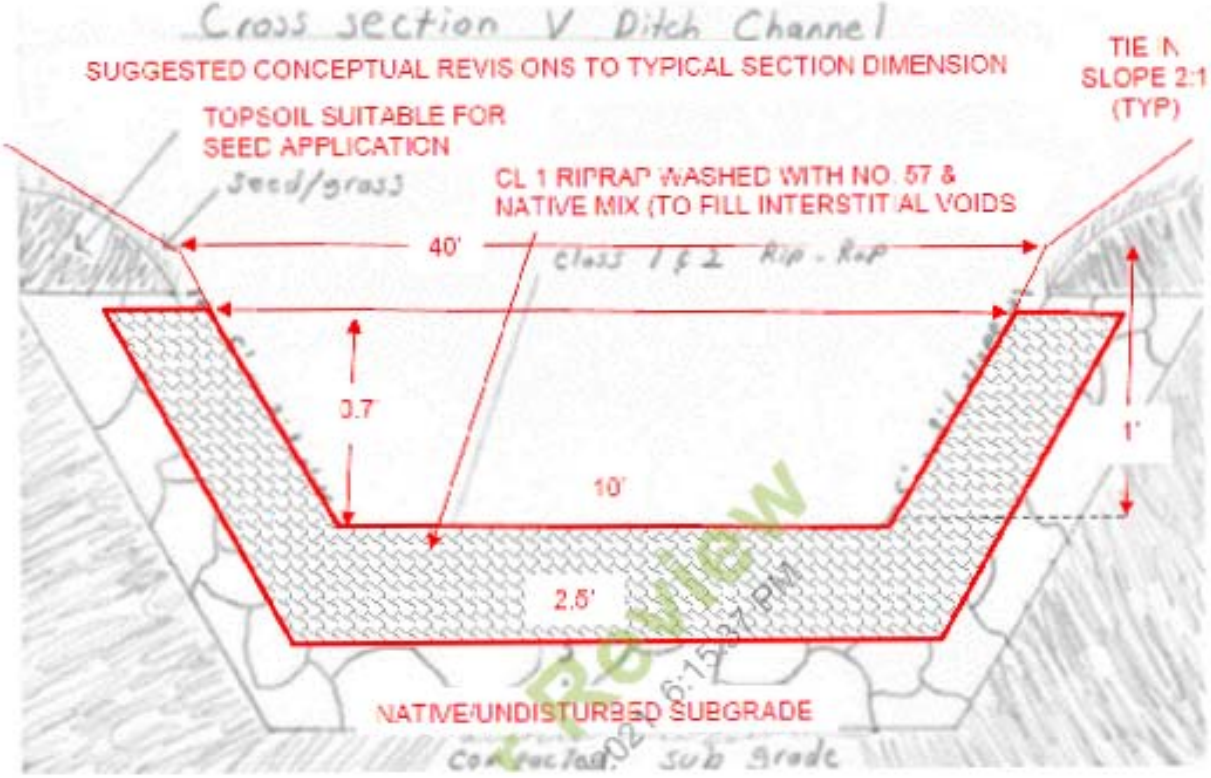
Drainage basin areas, need to be seeded and stabilized. Pictures below are of the basin in South America where excessive mulch has been installed. CCSWCD Staff suggests using Kentucky 31 Fescue covered with straw to prevent washout. Mulch needs to be removed from these areas prior to seeding**.**





In follow up dialogue it was indicated that there were 2 primary areas of concern. The NC 102 project intends to clean up these areas and install RipRap lined V Ditch Channels in these locations, see detail below. Additionally, a Technical Memorandum has been provided by Stantec to further detail this work.

Figure 2 – Suggested design considerations (dimension)



Planning

Memo

To: Cabarrus County Planning and Zoning Commission

From: Susie Morris, Planning and Zoning Manager

cc: File

Date: 5/26/2021

Re: Proposed Text Amendments (Chapter 4, Chapter 7 and Chapter 16)

Attached you will find proposed text changes. The changes address the following:

Chapter 4 Overlays

The proposed amendment to Chapter 4 is to clean up language from a past amendment. The language needs to be deleted to be consistent with the language stated in Chapter 5.

Chapter 7 Performance Based Standards

The proposed amendment to Chapter 7 is related to the development standards for Accessory Dwelling Units (ADUs).

The amendment allows additional flexibility with placement of the ADU. Historically, ADUs were placed in close proximity to the primary structure so that care takers would be nearby in an emergency. Larger properties are being purchased with the intent of accommodating additional distance between the primary structure and the ADU.

Chapter 16 Flood Damage Prevention

The proposed amendments incorporate current enabling statutes and add language to address auto-adoption of new maps so that the ordinance does not have to be amended each time there is a mapping change. The update language was provided by NCDEM.

AMEND Section 7-3 Uses Permitted Based on Standards (PBS) as follows:

#1 Accessory Building, Accessory Dwelling Unit and Swimming Pools Accessory to Single Family Residential

a. Residential accessory dwelling units in the AO, CR, LDR, MDR and HDR districts shall not exceed fifty (50) percent of the square footage of the base ~~floor~~ area of the primary structure (BAS) as listed on the Cabarrus County Tax Card. ~~In residential districts, the accessory dwelling unit shall be sited to the rear of the primary structure or to the side as a secondary option.~~ If sited as part of a commercial or industrial building, the accessory dwelling unit shall be incorporated into the overall building design and shall not exceed twenty five (25) percent of the structure in which it is located.

AMEND Chapter 4, Section 4-10, 15 as follows:

15. Where the Waterbody Buffer Zone or no build buffer impacts or is part of a lot, a note shall be placed on the plat or site plan and a restriction shall become part of the deed for the property stating that said property is subject to the Waterbody Buffer Zone.

a. Land within a stream buffer shall not be used to meet the minimum area requirements for lots that are one acre or less.
b. If a lot is greater than one acre in area, ~~except where lots are greater than one acre in area,~~ the buffer area may be used to meet the minimum lot size requirements, however, at least 50 percent of the lot shall remain outside the stream buffer area.

AMEND Chapter 16 as follows:

DELETE current Section A. Statutory Authorization and **REPLACE** with new Section A.

~~The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3 and 4 of Article 18 of Chapter 153A; and Part 121, Article 6 of Chapter 153A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare.~~

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Article 6 of Chapter 153A; Article 8 of Chapter 160A; and Article 7, 9, and 11 of Chapter 160D of the North Carolina General Statutes, delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare.

REVISE Part 3, General Provisions, Section B

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its FIS dated November 5, 2008 for Cabarrus County and associated DFIRM panels dated November 5, 2008, March 2, 2009, June 16, 2009, February 19, 2014 and November 16, 2018, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this ordinance and all revisions thereto. ~~Future revisions to the FIS and DFIRM panels that do not change flood hazard data within the jurisdictional authority of Cabarrus County are also adopted by reference and declared a part of this ordinance.~~