
Appendix B : RIDEM Correspondence and Permits

From: Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>
Sent: Wednesday, July 31, 2019 2:28 PM
To: Brian Giroux <bgiroux@diprete-eng.com>
Cc: Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>; Swift, Claire (DEM) <claire.swift@dem.ri.gov>; Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>
Subject: RE: Water Quality - DEM Wetland Application #19-0030

Hi Brian,

I was recently approached by both Marty and Nick about the e-mail you sent last week (copied below). I apologize for the delay in getting a reply to you, but it did require some in-house discussion and, as the manager that will be overseeing the Stormwater group and Water Quality it was decided I would be the best person to respond.

As you yourself pointed out in your e-mail, there are a number of factors that affect water quality that may be independent of the effects from any permitted project. In an ideal world, we would require that ambient water quality data describing existing conditions (with guidance on specific parameters to measure and time of year requirements) and then use that to compare post-project impacts on water quality to determine if there is an impact that we then need to address. But doing so is very work intensive and may ignore factors beyond the control of either DEM or the developer. So we do not, as a rule, do this. Rather, we've taken the work of innumerable studies of many other scientists and engineers who have provided documentation of the impacts of various types of development on multiple water quality parameters within waters and wetlands, and used those to develop stormwater standards that serve as surrogates for determining acceptable levels of impacts. That is, if an applicant meets the stormwater standards for those aspects of the project that we have some control over, we approve the project under the assumption that the project, if built in accordance with the terms and conditions of the permit, will not harm water quality.

As you note, this appears to be just a request by the Town that you "Request the Rhode Island Department of Environmental Management, through it's (*sic*) permitting process, to require pre-construction water quality testing for those streams onsite that are perennial", with the desired outcome to be a better understanding of impacts from solar arrays on water quality. But really, the only way to determine what impact solar arrays (this one or any one) will have on water quality is to develop a controlled study that goes through thorough QA/QC protocols and is peer reviewed. Maybe the results of such a study would show that the current stormwater standards are protective for solar projects. If not, that would likely drive a change to those standards. But right now DEM does not have any staffing that would allow it to perform such a study, and I do not anticipate that DEM will require any study be done as a requirement of any permit it may issue for this application.

Feel free to contact me if you have any questions or need any clarification. Thank you!

Chuck Horbert, Deputy Administrator

RIDEM Office of Water Resources

Groundwater & Freshwater Wetlands Protection

(401) 222-4700, ext. 7402

From: Brian Giroux <bgiroux@diprete-eng.com>

Sent: Wednesday, July 24, 2019 9:29 AM

To: Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>; Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>; Swift, Claire (DEM) <claire.swift@dem.ri.gov>

Cc: Eric Prive <eprive@diprete-eng.com>; Kevin Morin <km@green-ri.com>

Subject: [EXTERNAL] : Iron Mine DEM Wetland Application #19-0030

Good Morning Marty, Nick, Claire,

We are starting to prepare for submission to the Town. Since you are the permitting team for the Iron Mine Solar Project (#19-0030) we need to discuss a condition of the Master Plan approval from the town. The condition reads, "Request the Rhode Island Department of Environmental Management, through it's permitting process, to require pre-construction water quality testing for those streams onsite that are perennial. The idea being to achieve an understanding if solar arrays effect surface water quality".

We thought this was an odd request and have not had a town request this before. We have experience with the water quality testing from Dowling Village. During the RIDEM permitting on that project, the Valley Alliance got involved and one of the conditions of the RIDEM approval was to do water quality testing. We ran into many obstacles:

- Insufficient pre-development data. Without extensive pre-development data, making a comparison is very difficult. One year (or season within the year), could have more rain and change all the concentrations. Another year could be dry and test results showed completely different concentrations. Some of the Dowling Village testing didn't even happen because streams weren't running during some seasons. Without extensive pre-development data, it's not possible to provide a post-development comparison versus a background/baseline value.
- What time of the year do you take the results and how do you maintain year after year? In the case of Dowling Village, we had times with no stream flow so one year the test might have been done in March another year we couldn't get a reading until May, which made the data inconsistent.
- Water quality is a broad brush. Do we measure for Nitrogen? Phosphorus? Turbidity? Temperature? Heavy Metals? Volume? Flowrate? All of these could vary heavily based on factors outside of stormwater.

In the end we don't know if what the town is trying to achieve is plausible. We don't know how we can prove the statement 'understanding if solar arrays effect surface water quality' and what liability would fall on the Designer (DiPrete), Owner (Green Development), and Permit Authority (RIDEM) for having to prove this. The interesting thing about the comment is that they simply stated that it be requested of RIDEM. Please review and provide your thoughts on the Town's request. If you have any questions feel free to give me a call.

Thank You!

Brian Giroux, PE

Director of Engineering and Design



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street
Providence, Rhode Island 02908

RECEIVED FOR RECORD
NORTH SMITHFIELD R.I.

Nov 13, 2019 at 08:35A

BOOK 831 PAGE 99
DOC #: 00040935

November 8, 2019

Ralph Ferra
& Faridoon Khan Revocable Trust
c/o 1105 Iron Mine Hill Road
North Smithfield, RI 02896

Insignificant Alteration – Permit

Re: Wetland Application No. 19-0030; and RIPDES File Number RIR101865 in reference to the location below:

Approximately 2300 feet north of Iron Mine Hill, approximately 5400 feet northeast of the intersection of Greenville Road (Route 104) and Iron Mine Hill Road, Utility Pole No. 41, AP 16, Lots 6 & 97; AP 17, Lot 175; AP 13, Lot 12 & 51; AP 12, Lots 136B & 137, North Smithfield, RI.

Dear Mr. Ferra:

The Department of Environmental Management's ("DEM") Freshwater Wetlands Program ("Program") has completed its review of your **Request for Preliminary Determination** application. This review included a site inspection of the above referenced property ("subject property") and an evaluation of the proposed new utility-scale, 43.7 MW, ground-mounted solar facility including transformers, electric utility line, access roads, site grading, and stormwater management system, as illustrated and detailed on site plans submitted with your application. These site plans were received by the DEM on September 25, 2019.

Our observations of the subject property, review of the site plans and evaluation of the proposed project reveals that alterations of freshwater wetlands are proposed. However, pursuant to 250-RICR-150-15-1.9 of the Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act, 250-RICR-150-15-1 (Rules), this project may be permitted as an **insignificant alteration** to freshwater wetlands under the following terms and conditions:

Terms and Conditions for Application No. 19-0030 & RIPDES No. RIR101865:

1. This letter is the DEM's permit for this project under the R.I. Fresh Water Wetlands Act, R.I. Gen. Laws § 2-1-18 et seq. This application review has also included review related to the RIPDES "General Permit for Storm Water Discharge Associated with Construction Activity".
2. This permit is specifically limited to the project, site alterations and limits of disturbance as detailed on the site plans submitted with your application and received by the DEM on September 25, 2019. A copy of the site plans stamped approved by the DEM is enclosed. Changes or revisions to the project that would alter freshwater wetlands are not authorized without a permit from the DEM.
3. Where the terms and conditions of the permit conflict with the approved site plans, these terms and conditions shall be deemed to supersede the site plans.
4. You must notify this Program in writing of the anticipated start date, and of your contractor's contact information, by submitting the Notice of Start of Construction Form prior to commencement of any permitted site alterations or construction activity. You must also notify this

commencement of any permitted site alterations or construction activity. You must also notify this Program in writing upon completion of the project, including submittal of the Notice of Termination Form. The Start of Construction Form and the Notice of Termination can be found on the webpage: dem.ri.gov/stormwaterconstruction.

5. A copy of the stamped approved site plans and a copy of this permit must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this permit and the stamped approved plans must be made available for review by any DEM representative upon request.
6. Within ten (10) days of the receipt of this permit, you must record this permit in the land evidence records of the Town of North Smithfield and supply this Program with written documentation obtained from the Town showing this permit was recorded.
7. The effective date of this permit is the date this letter was issued. This permit expires four (4) years from the date of issue.
8. Any material utilized in this project must be clean and free of matter that could pollute any freshwater wetland.
9. Prior to commencement of site alterations, you shall erect or post a sign resistant to the weather and at least twelve (12) inches wide and eighteen (18) inches long, which boldly identifies the initials "DEM" and the application number of this permit. This sign must be maintained at the site in a conspicuous location until such time that the project is complete.
10. Temporary erosion and sediment controls detailed or described on the approved site plans shall be properly installed at the site prior to or commensurate with site alterations. Such controls shall be properly maintained, replaced, supplemented, or modified as necessary throughout the life of this project to minimize soil erosion and to prevent sediment from being deposited in any wetlands not subject to disturbance under this permit.
11. Upon permanent stabilization of all disturbed soils, temporary erosion and/or sediment controls consisting of hay bales and/or silt fence must be removed.
12. You are responsible for the proper operation, maintenance and stability of any mitigative features, facilities, and systems of treatment and control that are installed or used in compliance with this permit to prevent harm to adjacent wetlands.
13. You are obligated to install, utilize and follow all best management practices detailed or described on the approved site plans in the construction of the project to minimize or prevent adverse impacts to any adjacent freshwater wetlands and the functions and values provided by such wetlands.
14. All plantings of shrubs, trees or other forms of vegetation as shown or detailed on the approved plans, or detailed in this permit, must be installed as soon as possible after completion of final grading; weather and season permitting.
15. Artificial lighting along the driveway where it crosses freshwater wetlands is not authorized in this permit.

16. Artificial lighting authorized by this permit must be directed away from all vegetated wetland areas. Where this is not possible, the use of deflectors to concentrate lighting away from vegetated wetlands must be employed.
17. You must provide written certification from a registered land surveyor or registered professional engineer that the stormwater drainage system including any and all basins, piping systems, catch basins, culverts, swales and any other stormwater management control features have been constructed/installed in accordance with the site plans approved by this permit. This written certification must be submitted to this Program within twenty (20) days of its request or upon completion of the project.
18. This Program has made specific revisions to the approved site plans. These revisions are clearly marked in red on the approved plans. This project must take place in compliance with these revisions. **Specifically, Sheet 18 has been correctly labeled as "Sheet 18 of 24".**
19. The long-term operation and maintenance (O&M) plan shall be strictly followed. The long-term O & M Plan shall be that entitled "Stormwater System Operation & Maintenance Plan, Iron Mine Solar, North Smithfield, RI; Applicant GDIM 1-9, LLC", dated 1/18/2019, prepared by DiPrete Engineering.
20. The items in the O & M Plan shall be augmented by the requirement that the proposed stone access drives shall be periodically maintained (at least once every two years) by re-scarification of the surface stone so as to maintain the perviousness of the roadway surface.

Pursuant to the provisions in 250-RICR-150-15-1.7(A)(9) and 250-RICR-150-15-1.11(D), as applicable, any properly recorded and valid permit is automatically transferred to the new owner upon sale of the property.

Additionally, the Program has reviewed this project in accordance with the standards of the RIPDES General Permit for Storm Water Discharge Associated with Construction Activity ("CGP"). Construction Activities which disturb one (1) or more acres of land and where storm water runoff is directed, via a point source, into a separate storm sewer system or into the waters of the State, are required to seek coverage under the Rhode Island Pollutant Discharge Elimination System (RIPDES) storm water permit. Our review has determined that the project has been designed to meet the requirements of the 2013 GP. This determination therefore includes your final authorization to discharge storm water associated with construction activity under the CGP. For future references and inquiry, your permit authorization number is **RIPDES No. RIR101865**.

Both the owner and the contractor retained to undertake the construction activity are required to comply with all terms and conditions of the CGP. This includes maintaining the Soil Erosion and Sediment Control (SESC) Plan, performing the required inspections and maintenance of the selected Best Management Practices (BMPs), and retaining inspection records. Further information on the requirements of the CGP is available at:

<http://www.dem.ri.gov/programs/benviron/water/permits/swcoord/pdf/cpg092618.pdf>.

Please be aware that the RIDEM's Rules and Regulations Governing the Establishment of Various Fees (250-RICR-30-00-1) require that RIPDES CGP permit holders to pay an Annual Fee of \$100.00. An invoice will be sent to the owner on record in May/June of each year if the construction was still active as of December 31st of the previous year. The owner will be responsible for the Annual Fee until the construction activity has been completed, the site has been properly stabilized, and a completed Notice of Termination (NOT) has been received by the RIPDES Program. A copy of the NOT can be found attached to the CGP on the web page referenced above.

You are required to comply with the terms and conditions of this permit and to carry out this project in compliance with the Rules at all times. Failure to do so may result in an enforcement action by this Department.

In permitting the proposed alterations, the DEM assumes no responsibility for damages resulting from faulty design or construction.

Kindly be advised that this permit is not equivalent to a verification of the type or extent of freshwater wetlands on site. Should you wish to have the types and extent of freshwater wetlands verified, you may submit the appropriate application in accordance with 250-RICR-150-15-1.8(C).

This permit does not remove your obligation to obtain any local, state, or federal approvals or permits required by ordinance or law and does not relieve you from any duties owed to adjacent landowners with specific reference to any changes in drainage.

Please contact Claire Swift of this office (telephone: 401-222-6820 x 7418) should you have any questions regarding this letter.

Sincerely,



Martin D. Wencek, Permitting Supervisor
Office of Water Resources
Freshwater Wetlands Program

MDW/CVS/cvs

Enclosure: Approved site plans

cc: Neal Personus, DEM Stormwater Program
Kerry Anderson, Town of North Smithfield Building Official
Brian Giroux, PE, DiPrete Engineering
Kevin Morin, PE, Green Development, LLC

RECORDED IN NORTSMITHFIELD RI Nov 13, 2019
AT 08:35A ATTEST LILLIAN SILVA SCOTT
Town Clerk



**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES**

235 Promenade Street
Providence, Rhode Island 02908

RECEIVED FOR RECORD
NORTH SMITHFIELD R. I.

Jun 14, 2019 at 10:22A

BOOK 815 PAGE 14
DOC #: 00039697

June 5, 2019

Ralph Ferra
1105 Iron Mine Hill Road
North Smithfield, RI 02896

Insignificant Alteration - Permit

Re: Application No. 19-0125 in reference to the location below:

Approximately 1100 feet north of Iron Mine Hill, approximately 5300 feet northeast of the intersection of Greenville Road (Route 104) and Iron Mine Hill Road, Utility Pole No. 41-35, Assessors Plat 16, Lot 6, North Smithfield, RI.

Dear Mr. Ferra:

The Department of Environmental Management's ("DEM") Freshwater Wetlands Program ("Program") has completed its review of your **Request for Preliminary Determination** application. This review included a site inspection of the above referenced property ("subject property") and an evaluation of a proposed new dry hydrant as illustrated and detailed on site plans submitted with your application. These site plans were received by the DEM on April 24, 2019.

Our observations of the subject property, review of the site plans and evaluation of the proposed project reveals that alterations of freshwater wetlands are proposed. However, pursuant to 250-RICR-150-15-1.9 of the Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act, 250-RICR-150-15-1, this project may be permitted as an **insignificant alteration** to freshwater wetlands under the following terms and conditions:

Terms and Conditions for Application No. 19-0125:

1. This letter is the DEM's permit for this project under the R.I. Fresh Water Wetlands Act, R.I. Gen. Laws § 2-1-18 et seq.
2. This permit is specifically limited to the project, site alterations and limits of disturbance as detailed on the site plans submitted with your application and received by the DEM on April 24, 2019. A copy of the site plans stamped approved by the DEM is enclosed. Changes or revisions to the project that would alter freshwater wetlands are not authorized without a permit from the DEM.
3. Where the terms and conditions of the permit conflict with the approved site plans, these terms and conditions shall be deemed to supersede the site plans.
4. You must notify this Program in writing immediately prior to the commencement of site alterations and upon completion of the project.

Application No. 19-0125

Page 2

5. A copy of the stamped approved site plans and a copy of this permit must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this permit and the stamped approved plans must be made available for review by any DEM representative upon request.
6. Within ten (10) days of the receipt of this permit, you must record this permit in the land evidence records of the Town of North Smithfield and supply this Program with written documentation obtained from the Town showing this permit was recorded.
7. The effective date of this permit is the date this letter was issued. This permit expires four (4) years from the date of issue.
8. Any material utilized in this project must be clean and free of matter that could pollute any freshwater wetland.
9. Prior to commencement of site alterations, you shall erect or post a sign resistant to the weather and at least twelve (12) inches wide and eighteen (18) inches long, which boldly identifies the initials "DEM" and the application number of this permit. This sign must be maintained at the site in a conspicuous location until such time that the project is complete.
10. Temporary erosion and sediment controls detailed or described on the approved site plans shall be properly installed at the site prior to or commensurate with site alterations. Such controls shall be properly maintained, replaced, supplemented, or modified as necessary throughout the life of this project to minimize soil erosion and to prevent sediment from being deposited in any wetlands not subject to disturbance under this permit.
11. Upon permanent stabilization of all disturbed soils, temporary erosion and/or sediment controls consisting of hay bales and/or silt fence must be removed.
12. You are responsible for the proper operation, maintenance and stability of any mitigative features, facilities, and systems of treatment and control that are installed or used in compliance with this permit to prevent harm to adjacent wetlands.
13. You are obligated to install, utilize and follow all best management practices detailed or described on the approved site plans in the construction of the project to minimize or prevent adverse impacts to any adjacent freshwater wetlands and the functions and values provided by such wetlands, until such time that you document that this responsibility has been assumed by another person or organization.

Pursuant to the provisions in 250-RICR-150-15-1.7(A)(9) and 250-RICR-150-15-1.11(D), as applicable, any properly recorded and valid permit is automatically transferred to the new owner upon sale of the property.

You are required to comply with the terms and conditions of this permit and to carry out this project in compliance with the Rules at all times. Failure to do so may result in an enforcement action by this Department.

In permitting the proposed alterations, the DEM assumes no responsibility for damages resulting from faulty design or construction.

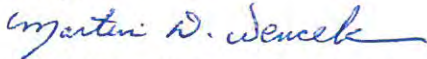
Application No. 19-0125
Page 3

Kindly be advised that this permit is not equivalent to a verification of the type or extent of freshwater wetlands on site. Should you wish to have the types and extent of freshwater wetlands verified, you may submit the appropriate application in accordance with 250-RICR-150-15-1.8(C).

This permit does not remove your obligation to obtain any local, state, or federal approvals or permits required by ordinance or law and does not relieve you from any duties owed to adjacent landowners with specific reference to any changes in drainage.

Please contact Claire Swift of this office (telephone: 401-222-6820 x 7418) should you have any questions regarding this letter.

Sincerely,



Martin D. Wencek, Permitting Supervisor
Office of Water Resources
Freshwater Wetlands Program

MDW/CVS/cvs

Enclosure: Approved site plans

ec: David Chartier, Town of North Smithfield Fire Chief

RECORDED IN NORTSMITHFIELD RI Jun 14, 2019
AT 10:22A ATTEST DEBRA A TODD
Town Clerk



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street
Providence, Rhode Island 02908

February 7, 2019

Ralph Ferra
& Faridoon Khan Revocable Trust
c/o 1105 Iron Mine Hill Road
North Smithfield, RI 02896

Re: Application No. 18-0237 in reference to the location below:

Approximately 2300 feet north of Iron Mine Hill, approximately 5400 feet northeast of the intersection of Greenville Road (Route 104) and Iron Mine Hill Road, Utility Pole No. 41, AP 16, Lots 6 & 97; AP 17, Lot 175; AP 13, Lot 12 & 51; AP 12, Lots 136B & 137, North Smithfield, RI.

Dear Mr. Ferra:

The Department of Environmental Management's ("DEM") Freshwater Wetlands Program ("Program") has completed its review of your **Request to verify the delineated edge of freshwater wetlands**. This review included an inspection of the above referenced property ("subject property") as described by the site plans submitted with your application and received on November 20, 2018.

Based upon the Program's observations and review, it is our determination that freshwater wetlands are present on the subject property. These freshwater wetlands are regulated by this Program and include at least the following types:

- Swamp
- Forested Wetland
- Stream
- River (Spring Brook)
- Area Subject to Storm Flowage
- 50-foot Perimeter Wetland
- 100-foot Riverbank Wetland
- 200-foot Riverbank Wetland
- 100-year Floodplain

The DEM has completed an inspection and review of the wetland edges delineated by you on site. It is our determination that the wetland edges delineated on-site are substantially accurate. These wetland edges have been shown on the site plan submitted with your application.

Verified wetland flag numbers are listed as follows: A3 – A5; 100 – 115; 132 – 225; 314 – 319; 326 – 388; 400 – 412; 535 - 597; 629 - 647; 800 - 813; 900 - 938; 1000 - 1064; 1090 - 1119; 1156 - 1171; 1180 - 1207; 1216 - 1230; 1300 - 1311; 1400 - 1411; 1500 - 1509; 1600 - 1605; 1700 - 1709; 1800 - 1820; and 1900 – 1916. Other flags in these series were either located off site or not marked for verification on the site plan.

Flags that were shown on the site plan to be verified but are located off site are A1, A2, A6 – A8, W1 - W5, 1 – 7, 164 – 166, 300 – 313, 226 – 230, 663, 665, and 1170 – 1171. These flags are not considered verified since they are not situated on the subject property.

Please note that you should not infer that any verification of wetland edges carried out by this Department to date represents a determination that this is the extent of all wetlands on your property. **The Department has verified only those edges delineated and shown by you on the subject property and on site plans submitted with your application and as qualified in this letter.** Should you wish to verify the edge of any additional wetlands, an additional application will be required.

This letter does not constitute an approval or permit for any proposed project on the subject property. Pursuant to R.I. Gen. Laws § 2-1-21(a) of the Freshwater Wetlands Act and the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act, 250-RICR150-15-1, a permit is required from this Program prior to the commencement of any activity which impacts or alters freshwater wetlands.

This Program assumes that the edges of freshwater wetlands, as flagged or marked on site, have been accurately surveyed and portrayed on site plans submitted in support of your application. This Program makes no guarantee or representation that such survey is accurate.

In addition, you should note that freshwater wetlands are present on this property that may be regulated under Section 404 of the Clean Water Act (Federal Water Pollution Control Act, as amended 33 U.S.C. 1344). Accordingly, a permit may be required from the U.S. Army Corps of Engineers for any proposed alteration within these wetland areas.

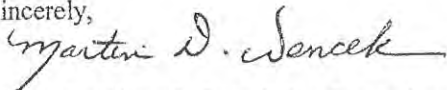
In accordance with 250-RICR-150-15-1.8(C)(8), this verification of the delineated edge of freshwater wetlands is valid for a limited period of four (4) years from the date of issue.

You are hereby advised that on July 10, 2015, significant revisions to the RI Freshwater Wetlands Act (R.I. Gen. Laws § 2-1-18 et. seq.) were signed into law. These revisions modify, among other things, the “jurisdictional areas” recognized by the State of Rhode Island. The Department is currently in the process of amending the Rules. If you are contemplating a project on your property, and submit the application prior to the promulgation of the revised Rules, you can expect the wetlands jurisdictional areas to correspond as described in this verification letter.

Any application submitted after promulgation of the Rules will be expected to conform to the then existing and duly promulgated Rules. While these changes will not affect the location of flagged wetland edges as verified in this letter, they may affect how activities located in adjacent jurisdictional upland areas will be regulated. You are advised, in the meantime, to monitor the rulemaking process, which will include opportunities for public input and comment.

Please contact Claire Swift of this Office telephone: (401-222-6820, ext. 7418) should you have any questions regarding this letter.

Sincerely,



Martin D. Wencsek, Permitting Supervisor
Office of Water Resources
Freshwater Wetland Program
MDW /CVS/cvs

ec: Kevin Morin, PE, Green Development, Inc.
Joseph McCue, Mason & Associates, Inc.

Appendix C :Reduced Plans

