

#3 C&D Debris | Subcommittee Meeting #3 Summary – Construction & Demolition Debris September 2, 2021 2PM-5PM

Subcommittee meeting #3 of the Construction & Demolition Debris Subcommittee (#3-C&D) was convened virtually via Zoom on September 2, 2021 from 2 PM-5 PM, CST. Attendance for #3-C&D is provided in Table 1 below.

Table 1. #3 C&D Subcommittee Membership and Attendance

Name	Company	Attended 9/2/21
Becky Soglin	Johnson County Planning, Development and Sustainability	Present
Tim Ruth	Home Builders Association of Iowa and Iowa City	Absent
Brian Seals	Waste Commission of Scott County	Present
Hal Morton	Des Moines County Regional Solid Waste Commission	Present
Seth Shannon	SCHEMMER	Present
Richard Graves	NA	Absent
Damion Sadd	Continental Cement Co.	Present
Kerry Dixon	Engie North America	Present
Les Stohs	Greater Des Moines Habitat for Humanity/Re-Store	Absent
Nick Wylie	J Pettiecord	Absent
Cindy Kuhn	Habitat for Humanity Restore in QCA	Present
Reid Bermel	DNR Internal SMM Team	Present
Laurie Rasmus	DNR Internal SMM Team	Present
Jeff Fiagle	DNR Internal SMM Team	Present
Tom Anderson	DNR Internal SMM Team	Present
Jennifer Wright	DNR Internal SMM Team	Present
Michelle Leonard	Consultant – SCS Engineers	Present
Christine Collier	Consultant – SCS Engineers	Present
Jeff Phillips	Consultant – SCS Engineers	Present
Karen Luken	Sub-Consultant – EESI*	Present

* Economic Environmental Solutions International

A. Subcommittee #3 - C&D Summary

The meeting began with the project consulting team reviewing the agenda for this meeting (see Attachment A), the overall objectives of the Sustainable Materials Management (SMM) – Vision for Iowa project, the process and goals of the project process, and the goals for today’s subcommittee meeting. The Stakeholder Meeting #2 schedule and Subcommittee responsibilities were also discussed. The slides presented for this Subcommittee meeting are included in Attachment B.

The project consulting team then lead Subcommittee members through a discussion of fundamental questions. Below are the questions and the responses from Subcommittee members.

- How Do We Engage the Building Industry?
 - Higher level talks with the Home Builders Association to talk with their leadership or sustainability coordinator.
 - Promote and connect with others through attending conferences, association meetings, outreach initiatives, and project promotion efforts.
 - Consider attending the “Iowa Ideas” (<https://www.iowaideas.com/>) conference in Cedar Rapids. This conference is sponsored by the Gazette and primarily focuses on sustainability and energy topics. Conference coordinator contacts are:
 - Chelsea.Grieder@thegazette.com
 - Zack.Kucharski@thegazette.com
 - There is an American National Standards Institute (ANSI) credential for commercial green building certification called the Green Globes Assessment Protocol for Commercial Buildings, or Green Globes NC 2019. There is also the Green Globe Professional credential to develop experienced sustainability professionals into expert users of the Green Globe building assessment and rating system.
 - If there would be resistance, the trade associations would be the first ones to tell you all of the barriers.
 - Just like there is an energy star for appliances, it would be good if the builder organization had something similar that helped communicate that the builder is committed to the environment.
 - The American Federation of Labor has monthly meetings and produces newsletters.
 - Consider connecting with the Master Builders of Iowa or other general contractors associations.
 - The United States Green Building Council (USGBC) of Iowa could be helpful.
 - Providing the builders and contractors with technical support and information on what to do with materials would be good.
 - Should we be asking builders their thoughts on what to do with the material or what greener materials are feasible for them to use.
- How Do We Create Markets for C&D Debris Materials?
 - Educate and show people the benefit of saving resources and the environmental impacts.
 - E.g. We sell an alternative product that has less of an environmental impact, and has the same qualities and price as the traditional product. Customers are selecting this material more and more due to the story they can tell their clients

concerning the positive environmental impact the product has over traditional materials.

- It comes down to the return on the investment. If it costs them more to do something and their isn't a financial return, businesses typically won't do it. If it's regulated, then it just costs more for everyone.
- Developing a C&D recycling facility in Story County that serves the regional area may work well – but siting a facility and getting the public on-board would likely be tough.
- We need to incentivize the owners of companies financially. If it's a tax credit, then how do we do something similar for state institutions or others that do not pay taxes.
- Perhaps those that don't pay taxes could sell their tax credits to those that do. So the tax incentives could still be applied.
- Use crushed glass and asphalt shingles on roads for dust control.
- The Iowa Department of Transportation (DOT) has approved the use of hot mix asphalt (HMA) at a rate of up to 5%, which is the total allowable recycled pavement or recyclable asphalt shingles that can be in the mix. Recycled asphalt pavement (RAP) is likely already on the road and on-site and becomes an easier and cheaper way for the contractor to just put that material right back down. Instead of just allowing, consider requirements for these materials to be used.
- Power of purchase agreement. Perhaps this could be an option?
- How Can Materials be Reused, Repurposed, and Recycled Most Efficiently?
 - You have to create the market.
 - Perhaps partner with box stores and have them promote green materials and/or practices.
 - Habitat ReStore works to collect materials for reuse and repurposing. This process is very labor intensive to collect the materials and then to get them ready for resale. Although this approach has proven to be successful, it is primarily successful due to the many volunteers which help to limit costs. There are around eight Home-ReStores in Iowa. It is a big undertaking to start and run a store.
 - Landfill of North Iowa has an agreement with their local Habitat for Humanity so that reusable materials that come across the scale can go to this organization. This was part of their Environmental Management System (EMS) program.
 - Waste Commission of Scott County has a similar program. However, it requires the Home ReStore to have a program liaison and we do not always have adequate staffing for all of the activities and services we perform.
 - Education needs to be upstream. We still have a designated area for Habitat ReStore. If people knew there was an opportunity for reuse, people may take better care of the materials as they pull them out.

- We spent our staff's time to sort the roofing materials to make sure they are clean and just contained asphalt shingles. We met with the roofing contractors to tell them we need clean loads in order to continue the program. We offered a \$10-\$12/ton discount on tipping fees for clean loads. We also provided yard signs to promote the program and show that the contractor is recycling the shingles. This was a marketing advantage initially, and participation in the program grew to over 100 contractors. When this growth occurred, there really wasn't a marketing advantage any longer. However, this process has now become the norm within the local industry.
- If you take one product line (shingles or compost) and you make a really good facility/program that everyone can participate in, this is much more efficient than having several facilities that may not be doing that activity very well. Maybe communities should focus on one product (i.e., glass, etc.) with the biggest impact with the dollars for investments.
- Agree that we should centralize facilities for specific services. An example of a stand-alone facility that is separate from the landfill is Metro Waste Authority's Regional Collection Center (RCC) for Household Hazardous Materials (HMM). Users of this facility know what this facility accepts and how the materials need to be delivered in order to be accepted.
- As a contractor, we can specify segregated wastes and during the project we can enforce as much as possible. However, if there is an incentive for the contractor to comply, they are more likely to do so.
- Sorting needs to be a priority so we can ensure clean materials.
- How Can the State Work With Local Governments to Affect Building Codes/Permits?
 - We need to find a way to bring everyone along. Mandates are expensive and turn people off. This needs to make good business sense. It also needs to be convenient. There is a green building code that is put out by international code council. It ties to international building codes.
 - Through the Iowa Derelict Building Program, the DNR is in contact with a lot of rural cities (through Iowa League of Cities) to review and assist with understanding code and regulations dealing with derelict buildings. The Iowa Derelict Building program is only eligible for cities with populations of 5,000 or less.
 - We do the inspections for our smaller cities and we can work with them. We can get the ear of our mayors and others. To identify areas of priority, we can look at the Census data to see where the growth is occurring.
 - The Iowa State Association of Counties (ISAC) would likely have contacts for the County Administrator Zoning Councils.
 - A lot of cities and counties rely on pre-fab building and construction codes/regulations. Any modifications can be concerning for the local government because they may feel they have liability for making changes beyond the national standard. Can the state help bridge the gap between the boiler plate language to these modifications?

- Department of Public Safety manages the building and fire codes for the state.
- If language in project permitting stated that you at least need to assess your project to determine if you can do something in a sustainable way, that is step one. Then it would be good if there was a way to provide technical expertise to someone that wants to do these activities. Something that can offer direction to those that want to participate.
- The state used to have an Iowa Green List which provided information on recycling/reuse options across the state. This program became burdensome and expensive to maintain due to database management, and unreliable participation and data from businesses.
- The Iowa Derelict Building Program requires projects to commit to at least 30% reuse or recycling in order to get reimbursement through the program. The program incentivizes them to reuse or recycle more by offering additional reimbursement.
- With new construction for state buildings, you have to do a life cycle cost analysis (LCCA) on mechanical and electrical systems to determine the most energy efficient systems. This approach could perhaps be applied to the materials used for a project. Below is information shared to the group concerning this requirement:
 - The Code of Iowa defines when an LCCA is required when it states that “... a public agency responsible for the construction or renovation of a facility shall... include as a design criterion the requirement that a life cycle cost analysis be conducted for the facility.” and then:
 - Review and Approval Procedure: The public agency responsible for the new construction or renovation is to submit the LCCA report to the Iowa Department of Public Safety for review.
- If this is an approach we were to take, we would need to ensure the department responsible for reviewing the LCAs has the appropriate capability and capacity to perform this additional work.
- What Are The Barriers To Developing C&D Processing Facilities?
 - Is there a way to think beyond Iowa? To address potential ‘not in my back yard’ (NIMBY) concerns, perhaps advocate these facilities/operations as being able to provide jobs.
 - While you can have stand-alone facilities to accept, sort, and process materials, they may not have the expertise or resources to make this effort successful.
 - The state of Iowa has funded businesses to collect, process, and repurpose or recycle a variety of materials over the years. Some of these projects have been successful and some haven’t. The success typically has more to do with what the market does than anything else (i.e., asphalt shingles).
 - It might be a good idea to invite DOT to participate in the asphalt shingle reuse discussion.

- The DOT regulations stipulate that projects “may” use HMA. Is there enough asphalt shingle material available in Iowa to change the language from “may” to “shall” use HMA?
 - From a solid waste management facility’s perspective, I think there is enough asphalt shingle material in Iowa to support HMA program.
- From a LCA point of view, should asphalt shingles just be landfilled?

The project consulting team then led Subcommittee members through a discussion and prioritization process. This process reviewed the identified strategies and categorized them by potential implementation timeframes of **immediate (0-3 years)**, **medium (4-10 years)**, or **long-term (11+ years)**. The results of this process are located in Attachment C.

B. Research Request List

Through the discussions and in follow up discussions, various topics have been identified for further action. These are provided below.

- Consider inviting the following to participate in future Subcommittee Meetings:
 - Home Builders Association of Iowa
 - Master Builders of Iowa
 - United States Green Building Council (USGBC) – Iowa Chapters
 - Department of Public Safety
 - Iowa Department of Transportation (DOT)
 - Iowa State Association of Counties (ISAC) - County Administrator Zoning Council
- Research LCAs for asphalt shingles.
- ANSI Credential for workers performing green construction.

C. Other Notes

Other items of note from the #2-C&D meeting are as follows:

- Second Stakeholder Meeting will be held on September 30, 2021. Subcommittee members in addition to other interested parties are invited and encouraged to attend.

Attachments:

Attachment A: Agenda

Attachment B: PowerPoint Presentation

Attachment C: Additional Information

Attachment A
Agenda

Subcommittee Meeting #3 – Construction & Demolition Debris

September 2, 2021

2:00PM – 5:00PM (CST)

Virtual Meeting

1. Recap SMM Goal, Process, and Schedule
2. Fundamental Questions
3. Potential SMM Strategies
4. Break
5. Prioritize Strategies
6. Next Steps
 - a. Stakeholder Meeting#2 (September 30, 2021)
 - b. Future meetings dates and logistics

Attachment B
PowerPoint Presentation



Agenda

- **Recap SMM Goal, Process, and Schedule**
- **Fundamental Questions**
- **Potential SMM Strategies**
- **Break**
- **Prioritize Strategies**
- **Next Steps**
 - Stakeholder Meeting#2 (September 30, 2021)
 - Future meetings dates and logistics

Goal

Establish a clear direction for implementing an SMM system with immediate, medium and long-term strategies

Phases of SMM Process

Phase I: What is it and should we do it?

Phase II: Prioritization and timing of what we should do and how we should accomplish it

Phase III: Ongoing Implementation

Phase II Process

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    graph LR
      A[Select specific material types within each category] --> B[Define and prioritize specific strategies  
• Legislation  
• Policies  
• Programs  
• Infrastructure]
      B --> C[Identify implementation timeline, responsible party, funding measures, and performance metrics]
    
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Material Types Selected

Organics & Fibers <ul style="list-style-type: none"> Edible Food Pre-Consumer Spoiled Food Compostable/AD Paper, Food and Yard Waste 	Plastics <ul style="list-style-type: none"> Single-Use PET Water Bottles Plastic Film/Bags Polystyrene (Styrofoam) 	Renewable Energy Equipment <ul style="list-style-type: none"> Wind Turbines Solar Panels Storage Batteries 	Construction & Demolition <ul style="list-style-type: none"> Interior Building Components Roofing Materials Drywall, Plaster and Gypsum Board Treated and Untreated Wood
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Subcommittee Role

- Finalized Material-Specific Groups
- Continue as Active Working Groups
- Size and Composition May Change
 - Combination of Invitation and Application
 - Composition is Fluid
- Representation of Various Interests Reflecting Material Life Cycle
- Make Recommendations to the Stakeholders
- Vital to Project Progress and Success

IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS

Stakeholder Group Role

- Provide various perspectives on how SMM will be adopted and implemented in Iowa
- Provide on-going guidance to subcommittees
- Will consider and endorse subcommittee recommendations

IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS

Subcommittee Recommendation Process

- Develop Recommendations
- Present Recommendations to Stakeholders
- Consider Stakeholder Input and Modify Recommendations
- Present Further Developed Recommendations to Stakeholders

IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS

Today's Focus

IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS

Where Do We Go Next

- Present strategies and rankings to the Stakeholder Group on September 30th
- Receive input from Stakeholder Group
- Reconvene to
 - Reevaluate strategy ranking
 - Identify implementation timelines, responsible party, funding measures, and performance metrics
- Present implementation requirements to Stakeholder Group

IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS

Stakeholder Meeting #2: Sept 30th

- Subcommittees Present Recommendations
- Led by Appointed Representative
- Assistance from Facilitators
- Breakout rooms for Further Discussion

Agenda

9:00 – 9:15 Welcome and Introductions

9:15 – 11:30 Subcommittee Updates

11:30 – 11:45 Initial Group Comments/Breakout Selection

11:45 – 12:30 Lunch Break

12:30 – 1:15 Breakout #1

1:15 – 1:20 Switch Break

1:20 – 2:05 Breakout #2

2:05 – 2:30 Wrap Up and Next Steps

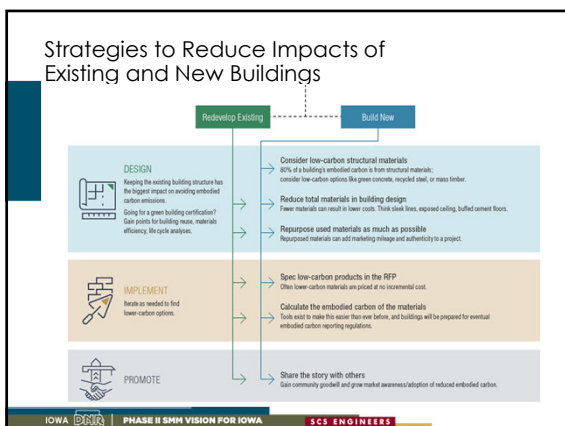
IOWA PHASE II SMM VISION FOR IOWA SCS ENGINEERS



Fundamental Questions

- How do we engage the building industry?
- How do we create markets for C&D debris materials?
- How do we change requirements for public and private sector projects?
- How can materials be reused, repurposed, and recycled most efficiently?
- How can the State work with local governments to affect building codes/permits?
- What are the barriers to developing C&D processing facilities?

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Upstream Strategies

- Conduct LCA's and Waste Characterization Studies
- Increase building community's understanding of the impacts of building design, materials use, and construction practices
- Review and update building codes for commercial and residential projects
 - Diversion specifications and reporting
 - Recycled content building materials
 - Low carbon building materials
 - Low waste generation
 - Reuse opportunities
- Review and update requirements for government projects
 - Diversion specifications and reporting
 - Recycled content building materials
 - Low carbon building materials
 - Low waste generation
 - Reuse opportunities
- Reduce sales tax on recycled content construction materials
- Implement carbon taxes on new construction

IOWA DNR | PHASE II SMM VISION FOR IOWA | SCS ENGINEERS

Consumer Strategies

- Increase building community's awareness and support of IWE services
- Implement green building practices
 - Utilize Recycled Content and Low Carbon Building Materials
 - Renovate existing structures
 - Utilize deconstruction methods
 - Streamline building design
 - Select materials based on waste generation and reuse opportunities
- Educate consumers on deconstruction principals and practices
- Incentivize building repurpose and material reuse
- Assess and report impacts of new construction and major renovation projects

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End-of-Life Strategies

- Support donation and deconstruction facilities
- Remove barriers to development of C&D processing facilities
- Incentivize development of C&D facilities
- Adopt Recycling Certification Institute methods

IOWA DNR | PHASE II SMM VISION FOR IOWA | SCS ENGINEERS



Attachment C
Additional Information

C&D

Immediate
(0-3 years)

Medium
(4-10
years)

Long-Term
(11+ years)

Upstream
Measures

Conduct LCAs and
waste characterization
studies

Increase building
community's understanding
of the impacts of building
design, material use, and
construction practices

Review and update
building codes for
government projects

Reduce sales tax on
recycled content
construction materials

Review and update
building codes for
commercial and
residential projects

Consumer
Actions

Increase building
community's
awareness and
support of IWE services

Incentivize building
repurpose and
material reuse

Lumber yards
(alternative outlets)
outlets for reused
materials

Assess and report
impacts of new
construction and major
renovation projects

Communicate
with cities on
revising permits

LCA For C&D Waste
Materials for
cities/counties for
commercial projects

Educate consumers on
deconstruction
principals and
practices

Create multi-
departmental
task force on C&D

Builder/contractor
certification program
- tie to national

Implement green
building
practices

LCA For C&D
Waste Materials
for public projects

End
of Life

Support donation
and deconstruction
facilities

Pose the question to
DOT of changing "May"
to "Shall" for RAS 5%

Adopt recycling
certification
institute methods

Remove barriers to
development of C&D
processing facilities

Incentivize
development of
C&D facilities