

<h2 style="text-align: center;">Schematic Design (SD)</h2>	
Outdoor Service Area	List existing recycling and dumpster locations on the existing condition site plans .
Indoor	Jen provides feedback about where recycling locations need to be and gives an overview of indoor recycling requirements
Walkway	Ray and Sarah provide feedback about locations
Access	List other buildings that utilize the dumpster and recycling sites shown on existing condition site plans .
Building Material Assessment and Salvage	<p>Building Material Walkthrough –</p> <p>Initial walkthrough by the design team TO DETERMINE what valuable and reusable materials are available for:</p> <ul style="list-style-type: none"> • Reuse in this project, • Reuse in other campus projects, • Reuse by the general public, or • Recycled (required <u>and</u> suggested). • Submittal requirement: Valuable & Reusable Building Material Inventory [Initial list at this time]
Fixtures, Furniture and Equipment Assessment and Salvage	Designers and customers begin thinking about what will and will not be reused in the finished project and during temporary housing.

*The information on this page can be found in the **UNC Design Guidelines**, Chapter II. Project Development Process, B. Project Development Sequence, b) Schematic, (1) Existing Site Conditions and (4) Schematic Design Submittal.*

<h2 style="text-align: center;">Design Development (DD)</h2>	
Outdoor Service Area	<ul style="list-style-type: none"> • Before DD documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to discuss outdoor service area requirements and equipment to be used. • Include specification <u>section 02475</u> with any relevant site or space planning requirements for this project • Include specification <u>section 11170</u> listing specifications, installation information, and suppliers for solid waste handling equipment to be purchased BY the project—at a minimum, this will include compactors. • Detailed plan sheets showing <u>outdoor service area enclosure(s)</u>, including: <ul style="list-style-type: none"> ○ screen wall details ○ electrical requirements ○ lighting ○ drainage ○ a list of buildings that the site(s) are intended to serve • An initial summary sheet listing all the outdoor service area equipment to be used. This will include: <ul style="list-style-type: none"> ○ the type of equipment (example: 8 yd. cardboard dumpster) , ○ the estimated cost, ○ whether the project, FP&C or the customer is purchasing them, and

<p>Indoor</p>	<ul style="list-style-type: none"> ○ the locations (if there's more than one building in the project). • Before DD documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to discuss indoor recycling locations and any special situations • Include specification <u>section 02475</u> with any relevant site or space planning requirements for this project • Include specification <u>Section 12300</u> Manufactured Casework listing specifications for recycling cabinets • Clearly marked locations of all <u>indoor recycling locations</u> -AND- detail sheets showing the plans for any recycling cabinets to be built by the project • An initial summary sheet listing all the indoor recycling sites. This will include the: <ul style="list-style-type: none"> ○ indoor recycling locations, ○ which locations will use cabinets, ○ whether the project, FP&C or the customer is purchasing them, and ○ the amount reserved for cabinets that are not being built by the project.
<p>Walkway</p>	<ul style="list-style-type: none"> • Before DD documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to discuss walkway recycling locations and any special situations • <u>Include specification 02870</u> listing the walkway recycling containers to be used and their placement. • Clearly marked plans showing the locations of all <u>walkway recycling locations</u> • An initial summary sheet listing all the walkway recycling sites. This will include the: <ul style="list-style-type: none"> ○ walkway recycling locations, ○ whether the project or FP&C is purchasing them, and ○ the amount reserved for walkway bins (assuming that FP&C will be purchasing them).
<p>Access</p>	<ul style="list-style-type: none"> • Staging plans and site drawings should include plans for access to the building (if occupied) and adjacent buildings such that deliveries and recycling/waste collection services can be maintained. • Demo plans shall note the requirement of contacting the Office of Waste Reduction and Recycling to remove indoor and outdoor containers (including dumpsters) as the project phasing affects different areas.
<p>Building Material Assessment and Salvage</p>	<p>Based on Valuable & Reusable Building Material Inventory :</p> <p>Reuse in project</p> <ul style="list-style-type: none"> • Based on inventory: <ul style="list-style-type: none"> ○ Discussion and initial decisions ○ Design team and construction manager at risk • Submission requirement: Decisions are to be integrated into specs and drawings: 01505, 02070, and appropriate specifications and drawings <p>Reuse in other projects:</p> <ul style="list-style-type: none"> • Circulate list to Facilities Planning and other design teams • Submission requirement: Salvage to be listed in 01505, 02070 and appropriate specifications and drawings <p>Outside salvage/recycle:</p> <ul style="list-style-type: none"> • Market research • Design team, construction manager at risk and the Office of Waste Reduction and Recycling , Construction Manager at Risk, Office of Waste Reduction and Recycling assists • Submission requirement: Any potential recyclables are to be listed in 01505 as a rough list of required and suggested materials. Any salvage is to be listed in 02070 and appropriate specifications and drawings

<p>Fixtures, Furniture and Equipment Assessment and Salvage</p>	<p>Fixture, Furniture & Equipment Walkthrough –</p> <p>Initial walkthrough by the design team TO DETERMINE what valuable and reusable materials are available.</p> <ul style="list-style-type: none"> • Submittal requirement: <i>Fixture, Furniture & Equipment Inventory</i> <ul style="list-style-type: none"> ○ initial list at this time ○ detailed information and quantities on FF&E (Brand, year, etc.). ○ movable items ○ fixed items (list in 01505, 02070, add language to appropriate specifications and show details on plans (demo and others as needed) <p>Reuse in project:</p> <ul style="list-style-type: none"> • Based on inventory: <ul style="list-style-type: none"> ○ Discussion and initial decisions • UNC Design Manager, Design Team, consultants (move coordination, interior design, etc.), UNC Interior Design Services, Office of Waste Reduction and Recycling <p>Reuse elsewhere on campus:</p> <ul style="list-style-type: none"> • UNC Design Manager, Design Team, Facilities Services Shops, Office of Waste Reduction and Recycling (assists) • Circulate inventory to departmental business managers <p>Surplus:</p> <ul style="list-style-type: none"> • UNC Design Manager, Design Team, Construction Manager at Risk, Surplus, Office of Waste Reduction and Recycling (assists) • Based on inventory: <ul style="list-style-type: none"> ○ Discuss presale or warehouse. ○ Research markets.
<p>01060</p>	<p>Standard wording</p>
<p>01505</p>	<p>INITIAL lists for building materials and non-moveable FFE of:</p> <ul style="list-style-type: none"> • Reuse in this project, • Reuse in other campus projects, • Reuse by the general public, or • Recycled (required <u>and</u> suggested).
<p>02070</p>	<p>INITIAL plan for building materials and non-moveable FFE:</p> <ul style="list-style-type: none"> ○ Storage for reuse in Project ○ Transfer for reuse on campus ○ Delivery to Owner (Surplus and Shops)

*The information on this page can be found in the **UNC Design Guidelines**, Chapter II. Project Development Process, B. Project Development Sequence, c) Design Development Phase, (1) Design Development Submittal, (b) Site and space planning information for waste and recycling collection, (t) Maintaining services and access to buildings during construction, and (p) Construction Waste Management.*

	<h2>Construction Documents</h2>
<p>Outdoor Service Area</p>	<ul style="list-style-type: none"> • Before Construction Documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to confirm outdoor service area requirements and equipment to be used. • Include specification <u>section 02475</u> with any relevant site or space planning requirements for this project • Include specification <u>section 11170</u> listing specifications, installation information, and suppliers for solid waste handling equipment to be purchased BY the project—at a minimum, this will include compactors. • Detailed plan sheets showing <u>outdoor service area enclosure(s)</u>, including: <ul style="list-style-type: none"> ○ screen wall details

	<ul style="list-style-type: none"> ○ electrical requirements ○ lighting ○ drainage ○ a list of buildings that the site(s) are intended to serve <ul style="list-style-type: none"> ● A FINAL summary sheet listing all the outdoor service area equipment to be used. This will include: <ul style="list-style-type: none"> ○ the type of equipment (example: 8 yd. cardboard dumpster) , ○ the estimated cost, ○ whether the project, FP&C or the customer is purchasing them, and ○ the locations (if there's more than one building in the project).
<p>Indoor</p>	<ul style="list-style-type: none"> ● Before Construction Documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to confirm indoor recycling locations and any special situations ● Include specification <u>section 02475</u> with any relevant site or space planning requirements for this project ● Include specification <u>Section 12300</u> Manufactured Casework listing specifications for recycling cabinets ● Clearly marked locations of all <u>indoor recycling locations</u> -AND- detail sheets showing the plans for any recycling cabinets to be built by the project ● A FINAL summary sheet listing all the indoor recycling sites. This will include the: <ul style="list-style-type: none"> ○ indoor recycling locations, ○ which locations will use cabinets, ○ whether the project, FP&C or the customer is purchasing them, and ○ the amount reserved for cabinets that are not being built by the project.
<p>Walkway</p>	<ul style="list-style-type: none"> ● Before Construction Documents are prepared, the design team and the Office of Waste Reduction and Recycling meet to confirm walkway recycling locations and any special situations ● <u>Include specification 02870</u> listing the walkway recycling containers to be used and their placement. ● Clearly marked plans showing the locations of all <u>walkway recycling locations</u> ● A FINAL summary sheet listing all the walkway recycling sites. This will include the: <ul style="list-style-type: none"> ○ walkway recycling locations, ○ whether the project or FP&C is purchasing them, and ○ the amount reserved for walkway bins (assuming that FP&C will be purchasing them).
<p>Access</p>	<ul style="list-style-type: none"> ● Staging plans and site drawings should include plans for access to the building (if occupied) and adjacent buildings such that deliveries and recycling/waste collection services can be maintained. ● Demo plans shall note the requirement of contacting the Office of Waste Reduction and Recycling to remove indoor and outdoor containers (including dumpsters) as the project phasing affects different areas.
<p>Building Material Assessment and Salvage</p>	<p>Based on Valuable & Reusable Building Material Inventory :</p> <p>Reuse in project</p> <ul style="list-style-type: none"> ● Based on inventory: <ul style="list-style-type: none"> ○ Discussion and FINAL decisions ○ Create a plan for storage of materials ○ Design team and construction manager at risk ● Submission requirement: Decisions are to be integrated into specs and drawings: 01505, 02070, and appropriate specifications and drawings <p>Reuse in other projects:</p> <ul style="list-style-type: none"> ● Circulate FINAL list to Facilities Planning and other design teams ● Create a plan for transfer and storage ● Submission requirement: Salvage to be listed in 01505, 02070 and appropriate specifications and drawings

	<p>Outside salvage/recycle:</p> <ul style="list-style-type: none"> • Final list • Market research • Design team, construction manager at risk and the Office of Waste Reduction and Recycling, CONSTRUCTION MANAGER AT RISK, Office of Waste Reduction and Recycling assists • Submittal requirement: Any potential recyclables are to be listed in 01505 as a FINAL list of required and suggested materials. Any salvage is to be listed in 02070 and appropriate specifications and drawings
<p>Fixtures, Furniture and Equipment Assessment and Salvage</p>	<p>Fixture, Furniture & Equipment Walkthrough – Walkthrough by the design team TO DETERMINE what valuable and reusable materials are available.</p> <ul style="list-style-type: none"> • Submittal requirement: <i>Fixture, Furniture & Equipment Inventory</i> <ul style="list-style-type: none"> ○ FINAL list ○ detailed information and quantities on FF&E (Brand, year, etc.). ○ movable items ○ fixed items (list in 01505, 02070, add language to appropriate specifications and show details on plans (demo and others as needed) <p>Reuse in project:</p> <ul style="list-style-type: none"> • Based on inventory: <ul style="list-style-type: none"> ○ Discussion and FINAL decisions ○ Create a plan for transfer and storage • UNC Design Manager, Design Team, consultants (move coordination, interior design, etc.), UNC Interior Design Services, Office of Waste Reduction and Recycling <p>Reuse elsewhere on campus:</p> <ul style="list-style-type: none"> • UNC Design Manager, Design Team, Facilities Services Shops, Office of Waste Reduction and Recycling (assists) • Final list of who's getting what (re-circulate list to departmental business managers if necessary) • Create a plan for transfer and storage <p>Surplus:</p> <ul style="list-style-type: none"> • UNC Design Manager, Design Team, Surplus, consultants (move coordination, interior design, etc.), Construction Manager at Risk, UNC Interior Design Services, Office of Waste Reduction and Recycling • Based on inventory: <ul style="list-style-type: none"> ○ Decision as to presale or warehouse made ○ Research markets ○ Create a plan for transfer and storage
<p>01060</p>	<p>Standard Wording</p>
<p>01505</p>	<p>FINAL lists for building materials and non-moveable FFE of:</p> <ul style="list-style-type: none"> • Reuse in this project, • Reuse in other campus projects, • Reuse by the general public, or • Recycled (required <u>and</u> suggested).
<p>02070</p>	<p>FINAL plan for building materials and non-moveable FFE:</p> <ul style="list-style-type: none"> ○ Storage for reuse in Project ○ Transfer for reuse on campus ○ Delivery to Owner (Surplus and Shops)

*The information on this page can be found in the **UNC Design Guidelines**, Chapter II. Project Development Process, B. Project Development Sequence, d) Construction Document Phase, (1) Construction Document Design Submittal, (a) A sheet of drawings containing..., (g) These specifications related to recycling and waste management..., and (5) Final Movable Fixture, Furniture, & Equipment (FFE) Inventory.*

	Pre Bid
Outdoor Service Area	Not applicable
Indoor	
Walkway	
Access	
Building Material Assessment and Salvage	<ul style="list-style-type: none"> • Invite the Office of Waste Reduction and Recycling to Pre-bid meeting • Review requirements, specification and list of required and supplemental recycling with bidders • Design team, Construction Manager at Risk, Office of Waste Reduction and Recycling
Fixtures, Furniture and Equipment Assessment and Salvage	<ul style="list-style-type: none"> • Department fills out surplus forms and arranges for moving (move consultant and contractor). • Shops salvage and report back to design team and the Office of Waste Reduction and Recycling. • Surplus receives goods and or provides special pick ups if prearranged.
01060	<ul style="list-style-type: none"> • Explain process and requirements (include meeting requirement before project starts).
01505	
02070	

The information on this page supplements the [UNC Design Guidelines, Chapter II. Project Development Process, B. Project Development Sequence, e\) Bidding Phase.](#)

	Pre Construction
Outdoor Service Area	Notify the Office of Waste Reduction and Recycling Contact to remove the following from areas affected by construction: <ul style="list-style-type: none"> • dumpsters and carts • indoor containers • walkway bins
Indoor	
Walkway	<i>This is to happen at the start of each segment of phased construction.</i>
Access	<ul style="list-style-type: none"> • Work with the Office of Waste Reduction and Recycling to ensure that traffic plans do not impede access to dumpsters or other waste removal services for occupied buildings.
Building Material Assessment and Salvage	<ul style="list-style-type: none"> • Invite the Office of Waste Reduction and Recycling to Pre-bid meeting. • Review requirements, specification and list of required and supplemental recycling with bidders. • Design team, Construction Manager at Risk, Office of Waste Reduction and Recycling
Fixtures,	<ul style="list-style-type: none"> • Department fills out surplus forms and arranges for moving (move consultant and contractor)

Furniture and Equipment Assessment and Salvage	<ul style="list-style-type: none"> • Shops salvage and report back to design team and the Office of Waste Reduction and Recycling • Surplus receives goods and or provides special pick ups if prearranged
01060	Hold separate meeting to review these sections and discuss the draft solid waste management plan.
01505	
02070	

*The information on this page supplements the **UNC Design Guidelines, Chapter II. Project Development Process, B. Project Development Sequence, f) Construction Phase, (1) Pre-bid Conference.***

Construction	
Outdoor Service Area	Immediately notify the Office of Waste Reduction and Recycling of any deviations from plans or specifications and provide a copy of the appropriate change order.
Indoor	
Walkway	
Access	Immediately notify the Office of Waste Reduction and Recycling of any changes that will affect service to occupied buildings or dumpsters.
Building Material Assessment and Salvage	Implementation and documentation <ul style="list-style-type: none"> • Draft and Final Solid Waste Management Plan • Monthly reports and weight tickets (receipts) • Meetings as necessary to discuss reports or practices
Fixtures, Furniture and Equipment Assessment and Salvage	

*The information on this page supplements the **UNC Design Guidelines, Chapter II. Project Development Process, B. Project Development Sequence, f) Construction Phase, (2) Periodic Observation, and (3) Submittal Review.***

Project Completion	
Outdoor Service Area	<ul style="list-style-type: none"> • Order all recycling/solid waste equipment for the project. The final list should have been part of the CD phase. • Arrange for installation of the recycling/solid waste equipment per drawings and specifications in the Construction Documents. • Coordinate installations with the Office of Waste Reduction and Recycling. • Office of Waste Reduction and Recycling provides any equipment not purchased as part of the project, labels equipment, coordinates collection schedules with staff and contractors, and provides billing information to the accounting department.
Indoor	
Walkway	

<p>Access</p>	<ul style="list-style-type: none"> • Resume normal access to buildings.
<p>Building Material Assessment and Salvage</p>	<ul style="list-style-type: none"> • Provide the Office of Waste Reduction and Recycling with a summary of ACTUAL recycling, reuse and salvage activities for the project. This is to include, but is not limited to: <ul style="list-style-type: none"> ○ quantities landfilled, recycled, reused, and salvaged; ○ a break down of the types of materials recycled, reused and salvaged; the percent of total waste of each of the categories listed; ○ the destinations of these materials; ○ the economic impact of these activities on the project; and any success stories or challenges incurred.
<p>Fixtures, Furniture and Equipment Assessment and Salvage</p>	

The information on this page supplements the [UNC Design Guidelines, Chapter II. Project Development Process, B. Project Development Sequence, f\) Construction Phase, \(4\) Project Close-Out Responsibilities.](#)