

SPEC BOOKLET

Lots 32-33, 36-37, & 38-39, Dows Farm, Linn County, IA



DOWS
FARM



TWENTY40
BUILDING CONCEPTS

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Dows CDBG Ranch SPEC BOOKLET

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INTRODUCTION

The Dows Farm Agri-Community development is in total, 485 acres and is located off Mt Vernon Rd less than 1 mile west of Hwy 13, conveniently located 2.5 miles from the nearest Grocery store, schools, restaurants, and other conveniences such as a hardware store, care facility, salon, gas stations, and more. At completion, the Dows Agri-Community will have up to 12 local businesses to serve the community and surrounding communities, which include plans for a coffee shop, farm-to-table restaurant, financial institution(s), insurance or real estate offices, retail shops, an event center, and a working farm providing fresh produce to the residents. A wide range of homes and price-points are planned, making the Dows community a destination for many to call home. Other features include 88 acres of conservation land, parks, playgrounds, nature trail, ponds, an art fund, dense native landscaping, an orchard, vineyard, and more.

The CDBG-DR Derecho Disaster Recovery program is a federally funded grant program designed to assist Iowans and their communities with disaster recovery from the 2020 Derecho by creating affordable, universally designed, energy efficient, resilient homes available to individuals and families who meet income and other criteria, including qualifying for a mortgage to purchase one of the homes in the programs. Developers and builders apply with homes and projects that meet Green Streets Criteria and Energy Star criteria. Applications are graded and scored based on a wide range of required specifications and awarded additional points for many optional specifications if incorporated into their project. Approved projects must follow a strict regimen and must meet all the requirements of the program to be awarded any grant funding.

Dows Agri Community Development, LLC and Twenty40 Building Concepts, Inc. has been awarded (6) units under the program. Twenty40 will opt to build (3) duplexes.

As a potential sub-contractor of this CDBG program, we understand the additional time, resources, and attention to detail these projects will require and appreciate your willingness to participate and help our project flourish. All sub-contractors who's bid are awarded, will be required to review and sign a copy of all the necessary documentation needed for this project, including but not limited to this building spec booklet, building plans, CDBG requirements for your trade or scope, Green Street requirements for your trade or scope, Universal Design requirements for your trade or scope, and Energy Star requirements for your trade or scope, all of which are provided herein. In addition, each sub-contractor will be required to attend an in-person or virtual training seminar hosted by our team to provide proper education for all project specifications and accountability protocols for the duration of the project and for your trade or scope.

Thank you,

Twenty40 Building Concepts, Inc. Team

Questions: Dows@Twenty40Concepts.com

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GARBAGE & RECYCLING

- All sub-contractors will follow the following garbage and recycling guidelines:
 - Dedicated Wood Recycling dumpster will be on site for the duration of the framing process. All wood and only wood shall be disposed of in this dedicated dumpster for recycling
 - Dedicated Cardboard Recycling dumpster will be on site for the duration of the project. All cardboard and only cardboard shall be disposed in this dedicated dumpster for recycling
 - Dedicated Waste dumpster will be on site for the duration of the project. All materials other than wood or cardboard will be disposed of in this dedicated waste dumpster

EXCAVATION & SWPPP

- Excavate per plans for 16"x8" footings and 96" foundation walls. Dirt to remain on site (as needed) to achieve proper final grade for stormwater runoff reduction practices.
- General contractor to ensure Stormwater Pollution Prevention Plan (SWPPP) meets or exceeds Cedar Rapids building requirements, to include but not limited to:
 - Stockpile and protect high-quality topsoil from erosion, for reuse.
 - Install silt fencing throughout perimeter of lot
 - Protect ERPZs, on-site storm sewer inlets, watercourses, and water bodies with silt socks, or similar measure.
 - Identify and protect any tree with a diameter at chest height greater than 6".
 - Any soil in a sloped area to be stabilized with a berm or filter sock.

FOUNDATION & FLATWORK

- 96" foundation walls with 16"x8" frost footings for full basement foundation per plans with the following order of layers from top to bottom:
 - 4" Concrete Slab
 - 10-Mil+ Polyethylene vapor barrier with 6"+ of overlap at seams
 - 2" (R-10) of foam insulation under outer 48" of slab perimeter
 - 1"+ R-5 Extruded 25lb High-Density Polystyrene (throughout entire slab area)
 - Geotextile Drainage Matting (throughout entire slab area)
 - 4" layer of ½"+ clean rock (throughout entire slab area)
- Any sloped walks not to exceed 1 in 20 maximum slope
- 4"+ city walks, driveways, and patios, per plans and in accordance with building code
- Safe Room to be constructed with concrete in accordance to FEMA standards; see pages 7-13 of the building plans.

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FRAMING

- Follow Advanced Framing / Optimum Value Engineering best practices for all framing
- Stud spacing to be 24" on center spacing
- Single top plate
- 2x6 exterior walls / 2x4 interior walls
- 14" Energy Heels
- Two-stud corner framing with drywall clips or lumber scraps for any drywall backers
 - Extra blocking in bathroom and doorways for future grab bars/railings
- Eliminate headers in non-load bearing walls
- XPS Sheathing with taped joints at all exterior walls
- 2009 IRC Vapor barrier behind ½" drywall, at interior side of exterior walls

Framers to review APA website and resources for Advanced Framing practices: [Advanced Framing - APA – The Engineered Wood Association \(apawood.org\)](http://www.apawood.org)

- Roof structure, including framing to meet "FORTIFIED" Silver construction requirements:
 - Enhanced Roof Deck Attachment: Pages 15; 30; & 32
 - Sealed Roof Deck: Pages 23; 35 to 37
 - FORTIFIED Flashing Requirements: Page 46
 - Locked Down Roof Edges: Pages 44-45
 - Impact-resistant Shingles Rated by IBHS: Page 73
 - Anchored Attached Structures: Pages 66-67
 - Gable End Bracing: 59-60

PLUMBING

- All plumbing subject to Cedar Rapids building codes. Specifications include:
 - Underground Plumbing per building plans
 - Sump Pump with sealed lid, hard-piped to exterior and tiled below grade
 - PEX plumbing lines
 - PVC waste/drain/venting
 - No gas lines shall be ran; home is all-electric
 - Salo 32x60 Single Unit Fiberglass tub/shower
 - A.O. Smith FPTU-50 Voltex Hybrid Electric Heat Pump Energy Star Water Heater
 - Bath: Peerless WaterSense Single Handle Bath Faucet: P136LF-BN (Brush Nickel)
 - Bath: American Standard Colony Pro 1.28 gpf 12" Rough-in Two-Piece Elongated ErogoHeight ADA Compliant, Water Sense Toilet (White)
 - Bath: Peerless WaterSense Tub and Shower Trim Kit (Brush Nickel)
 - Kitchen: Peerless WaterSense Single Handle Kitchen Pull-Down Faucet: P188103LF-SS
 - Passive Radon mitigation pipe to be installed in sealed sump pit, to extend and vent vertically
 - Home shall be Solar-Ready. Any roof penetrations to exit no further than 24" of any ridge/peak

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- All in-wall plumbing lines to be properly insulated in accordance with Green Streets Criteria
- All plumbing penetrations to be properly sealed in accordance with Green Streets Criteria – SEE RESOURCES ON PAGE 10 – All sealants to be low-VOC and non-toxic

HVAC

- All electric heating and cooling
- All HVAC is subject to Cedar Rapids building codes and Energy Star standards
- Energy Star rated Lennox 1.5 Ton/15 Seer 2 Split Heat Pump System with Lennox Air Handler
 - Honeywell WIFI Thermostat with Humidistat
- Energy Star rated bathroom exhaust fan with proper sealed ducting
- All in-wall HVAC lines to be properly insulated in accordance with Green Streets Criteria
- All HVAC penetrations to be properly sealed in accordance with Green Streets Criteria – All sealants to be low-VOC and non-toxic

ELECTRICAL

- All electrical is subject to Cedar Rapids building codes and Energy Star standards. Specifications include:
 - White, Leviton, 200Amp breaker panel with 200Amp service
 - Home shall be “Solar-Ready” – electrical service and electrical design shall allow for a seamless switch to utilize Solar equipment
 - Wiring for all appliances/equipment/fixtures as per this spec booklet
 - Panel to be equipped with Anti-Backfeed Device and Manual Transfer switch for affixed generator which shall supply power to at least 3 critical circuits including convenience outlet(s), fridge, sump pump
 - EV car charging circuit in accordance with DOE Zero Home Energy standards
 - All lighting to be Nicor Surface-Mount LED fixtures, with the following exceptions:
 - Bath Vanity: Minka Aire 3722-77-PL Energy Star Vanity Light
 - Bedrooms and Living Room: Minka Aire F1000-WH Energy Star Ceiling Fan with Remote Control
 - All in-wall electrical lines to be properly insulated in accordance with Green Streets Criteria
 - All electrical penetrations to be properly sealed in accordance with Green Streets Criteria – SEE RESOURCES ON PAGE 10 – All sealants to be low-VOC and non-toxic

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INSULATION & ENERGY

- Insulation specifications shall meet or exceed Green Street and Energy Star requirements and subject to the following:
 - Ceiling: R-49+
 - Exterior Walls: R-20+
 - Attic Scuttle: Rigid insulation plus fiberglass batt; R-49+; insulation dams
 - Concrete Slab Edge (See Foundation/Flatwork section): R-10+ at perimeter 4' and R-5+ interior
 - Seal and spray foam any air gaps and/or penetrations to ensure Thermal Envelope is intact (sealants to be low-VOC and non-toxic):
 - Spray foam all window and door rough opening gaps
 - Glue drywall to top and bottom plates
 - Sill gasket or double-bead of caulk under bottom plate floor
 - Exterior sheathing seams taped and sealed
 - Drywall penetrations to be sealed
 - Exterior wall and roof penetrations to be sealed
 - Seal any floor penetrations
 - Air gasket seals on all sides of attic scuttle with insulation dams
- Energy Auditor to meet all Energy Star and Green Streets scoring and certification requirements – SEE RESOURCES ON PAGE 10

ROOF

- Roof construction to follow Advanced Framing practices and FORTIFIED “Silver” roof specifications:
 - See “Framing & Masonry” Section
 - Home shall be “Solar-Ready” in that all penetrations shall exit no more than 2' from the ridge cap
 - CertainTeed NorthGate ClimateFlex Class 4 Impact Resistant shingle
 - FORTIFIED Silver Roof guidelines are found here: [FORTIFIED](#)

WINDOWS

- Windows to meet Energy Star requirements; sizes and locations per plans
 - Thermo-Tech, EnergyGuard Super High-Performance R-5+ Casement Windows with 0.19 U-Value and 0.24 Solar Heat Gain w/ no grids or 0.22 w/ grids
 - Rough opening gaps to be spray foamed
 - Sealants to be low-VOC and non-toxic

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EXTERIOR DOORS

- Exterior doors to meet Energy Star requirements; sizes and locations per plans
 - Masonite Sta-Tru ¼ Lite (Clear Glass) Paneled Steel Exterior Doors with Wood Edge with 0.19 U-Value and 0.09 Solar Heat Gain w/ no grids
 - Double-Bore Front Door / Single-Bore Garage Door
 - Schlage, Solstice passage levers (Brush Nickel)
 - Brush Nickel hinges
 - Rough opening gaps to be spray foamed (any sealants to be low-VOC and non-toxic)
 - Maintenance free door jamb and brickmolds

SIDING & SOFFIT

- Royal, Estate 4" Lap Vinyl Siding at sides and rear
 - Vertical, Board & Batton Siding at front porch
 - "Cedar" look Shakes at Gables
- Rollex, Aluminum Soffiting and Fascia material. Vented soffit per building codes and energy efficiency requirements
- Maintenance-free, Westbury, Aluminum exterior railing
- Maintenance-free, Azek, trim boards where applicable

GUTTERS

- Aluminum, Seamless gutters and downspouts. Downspouts to discharge at rock/garden beds

DRYWALL/SHETTROCK

- 2009 IRC Vapor barrier behind ½" drywall, at interior side of exterior walls
- ½" Drywall on vertical walls
- 5/8" Drywall on ceiling
 - Seams taped and filled
 - Orange peel texture on walls and ceilings
 - Drywall penetrations to be sealed by each trade – Sealants to be low-VOC and non-toxic
 - Mold resistant drywall to be used in bathroom as needed
 - Drywall returns at tops and sides of all windows (bottom to be wood sill)

PRIME/PAINT

- All paint, primers, sealers, stains, and adhesives to meet Green Street criteria and must not exceed the VOC limits for each item
- Sherwin-Williams Promar White Ceiling Paint/Primer
- Sherwin-Williams SuperPaint Interior Latex Satin Paint with Sanitizing Technology

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MILLWORK

- 3-1/4" Mission Style Base, Pre-finished white painted Poplar – Supplier to confirm paint does not exceed VOC limits per Green Streets criteria
- 2-1/4" Mission Style Casing, Pre-finished white painted Poplar - Supplier to confirm paint does not exceed VOC limits per Green Streets criteria
- Pre-finished white painted poplar window sills with casing "skirt" (drywall returns at top and sides) - Supplier to confirm paint does not exceed VOC limits per Green Streets criteria
- Paneled, hollow-core interior doors per plans, prefinished white painted - Supplier to confirm paint does not exceed VOC limits per Green Streets criteria
- Brushed Nickel, Schlage Solstice Door levers
- Brushed Nickel hinges and hardware
- Bi-Fold doors at closets
- See Exterior Doors for additional specs

CABINETS & COUNTERS

- Cabinetry with the following specifications:
 - 5/8" hardwood dovetail draw boxes
 - Soft-close drawers
 - Soft-close doors
 - White painted, Maple or HDF doors, Shaker Style
 - Brush Nickel Cabinet Hardware
 - Adjustable height shelving where applicable
- Quartz Counter Tops
 - Matching Quartz Throughout
 - Undermount, white oval bowl sink in bathroom
 - Undermount 50/50 stainless steel sink in kitchen

FLOORING

- All Hard-Surface flooring, no carpet to be installed.
 - Urban Surfaces, Sound-Tec vinyl plank throughout (FloorScore Certified)
 - Installation per manufacture's specifications

APPLIANCES

- Energy Star appliances where available:
 - To be installed per manufacturer specifications
 - Stainless Steel GE or Frigidaire Suite

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CLOSETS/SHELVING

- White wire shelving in all closets:
 - Shelf/rod in bedroom closets
 - Shelf/rod at entry closet
- Bench with coat hooks
 - Pre-finished coat hook rail at garage entry
 - Paint/Stain to meet VOC limits per Green Streets criteria

MIRRORS/ACCESSORIES

- 24"x36" Frameless Mirror at bathroom with mounting clips (not glued)
- Brush nickel bath accessories including towel bars and TP dispenser

LANDSCAPING/GRADING/DRAINAGE

- Final landscaping, grading, and drainage specifications to follow site plans and landscaping plans and shall be subject to Green Streets criteria and shall include:
 - Final grade and on-site infiltration design shall retain 1.25" rain event on site
 - Native plantings and garden beds at front and gutter discharge points to promote rainwater harvesting and to decrease runoff into stormwater systems

All information herein is deemed reliable, but not guaranteed. Twenty40 Building Concepts, Inc. reserves the right to make changes to the above specifications based on availability of materials, changes to program requirements, changes to sub-contractors, limitations and/or at the discretion of Twenty40 Building Concepts, Inc.