

HRA Design Standards Version 6 – Updated August 2013

The outline of the design standards mirrors CSI division outline.

*Note: Moderate rehabilitation of structures requires the use of ENERGY STAR labeled appliances and products as part of the renovation. Substantial rehabilitation and new construction require units to be certified by a Home Energy Rater as an ENERGY STAR Qualified Home; and all appliances must be ENERGY STAR qualified. Substantial rehabilitation is defined as rehabilitation that has exposed the studs on 75% or more of the exterior walls. All projects, rehabilitation and new construction, are required to achieve Enterprise Green Communities certification. See

<http://www.enterprisecommunity.com/servlet/servlet.FileDownload?file=00Pa000000FxxwvNEAR> for more information on Enterprise Green Communities criteria.

Rehabilitation and New Construction

Design Preference	Rehabilitation	New Construction
All Finished Rooms	- Shall have a minimum ceiling height of 7 feet	- Same requirement as Rehabilitation
Rooms	- Each house shall have a Living Room, Dining Room, Kitchen, and at least 2 Bedroom - Preferred to provide 3 or more bedrooms	- 3 bedrooms or more required
Front Entry/Rear Entry	- Ensure flooring able to withstand moisture/mud/dirt and is easily cleaned - Preferred closet or mudroom at front or rear entry	- Same requirement as Rehabilitation
Bedrooms	- Shall meet code requirement of at least 70 sq. feet with minimum wall dimensions of 7 feet - Shall meet egress requirements (see window section below) - Shall have a closet, construct when not present	- Same requirement as Rehabilitation
Laundry	- Screen in a closet or separate room when in finished space - Shall not be located in basement when entry to basement is from house exterior or when basement ceiling height is less than 7 feet.	- Same requirement as rehabilitation
Laundry (continued)		
Bathrooms	- Required: one full bathroom, complete with toilet, shower, tub, and sink all located in the same room - Preferred: two story houses locate a full bath on the 2 nd floor and a ½ bath on 1 st floor	- Required: one full bathroom, complete with toilet, shower, tub, and sink all located in the same room - Required: two story houses shall have at least one full bath and one ½ bath
Visitability	- Preferred: provide an accessible entrance and	- Visitability

	<p>doorways throughout the first floor (no step entrance with 32 inch clear opening doorways)</p> <ul style="list-style-type: none"> - Lever style door handles shall be provided on doors and blocking for grab bars shall be provided in baths - At least one half bathroom on the main level must meet the minimum clear floor space for half baths as required by Fair Housing Act “part B: Usable Bathrooms.” <i>(adapted from Minnesota Housing Finance Agency Rental Housing Design and Construction Standards)</i> 	standards required for New Construction
Front Porch	<ul style="list-style-type: none"> - Repair existing porches when cost reasonable - Open front porch preferred for all homes 	- Open front porch required for New Construction
See http://www.stpaul.gov/DocumentView.aspx?DID=1517 for more information about deck and porch requirements		
Duplex Deconversions	- It is preferred to remove entry to second unit to discourage future reversion to duplex	N/A for New Construction

General Requirements (Division 1)	Rehabilitation	New Construction
Energy Efficiency Energy Efficiency (required)	<ul style="list-style-type: none"> - Incorporate specifications from an ENERGY STAR auditor into Division 7 and 15 - Ensure use of Xcel Energy qualified insulation subcontractor or supervision from Xcel Energy qualified general contractor - HERS audit must be conducted before construction begins and after construction is complete - It is recommended that contractors contact an ENERGY STAR auditor for an inspection when insulation is complete prior to sheet rocking/painting 	- Same requirement as Rehabilitation
Code Compliance	<ul style="list-style-type: none"> - Certificate of Code Compliance required at the end of construction - Category 2 and 3 vacant buildings must address all items on code compliance report, provided by the City of Saint Paul HRA. Contact the City of Saint Paul Department of Safety and Inspections with questions 	- Certificate of Code Compliance required at the end of construction
Construction Waste	<ul style="list-style-type: none"> - Required: at minimum of 50% of construction debris shall be diverted from landfills - Submittal of a construction waste management plan prior to the notice to proceed and submittal of a construction waste management certification and the end of construction is required 	- Same requirements as Rehabilitation

Existing Conditions	Rehabilitation	New Construction
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(Division 2)		
Remove volunteer brush	- Remove trees or bushes (generally sized 6' or smaller for this line item) that do not aesthetically contribute to the landscape, are in poor condition, or are maintenance concerns	- Same requirements as Rehabilitation
Remove overhanging trees	Remove branches that overhang structures, completely remove if recommended by the Saint Paul Forestry Department	- Remove branches as they impede the proposed structure, completely remove if recommended by the Saint Paul Forestry Department
<i>Environmental Hazard Mitigation</i>		
Lead	- Abate all lead identified in risk assessment through HUD approved abatement methods - Ensure use of Minnesota Department of Health (MDH) qualified subcontractor or general contractor for abatement activity - Lead clearance test required at end of construction	- N/A for New Construction
Asbestos	- Remove all actionable asbestos identified in asbestos report - Ensure use of MDH qualified asbestos abatement subcontractor/general contractor	- N/A for New Construction
Radon	- Required: install radon ventilation system when radon test results indicate actionable radon levels in lowest occupied space (usually basement) - Ensure use of MDH qualified radon remediation subcontractor/general contractor - Preferred: radon ventilation to be installed in a chase through the house reduce visibility - When necessary to vent radon through the side of basement walls on the exterior of the house, the radon vent must be located so it is not visible from the street and is as inconspicuous as possible	- Install passive radon-resistant features below the slab; install a vertical vent pipe with junction box within 10 feet of an electrical outlet, in case an active system should prove necessary in the future. - Once building shell is sealed, test to determine if an active system is necessary, install active system if necessary - It is strongly preferred for radon ventilation to be installed in a chase through the house to reduce visibility - When necessary to
Radon (continued)		

		vent radon through the side of basements walls on the exterior of the house, the radon vent must be located so it is not visible from the street and is as inconspicuous as possible
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Concrete (Division 3)	Rehabilitation	New Construction
Garage slab/apron	- Pour slab for all new garages - Repair slab for existing garages to ensure uniform appearance free from significant deterioration, cracks	- Pour slab for all new garages
Basement floor	- Patch to achieve sweepable finish and address trip hazards - Fill water meter pit when present	- Concrete basement floor preferred for New Construction
City Curb/Apron/Sidewalk	- Ensure specifications that request repair, replacement, or removal of city sidewalks, curb, or apron improvements in City Right of Way include the following language: “Note: all work on curbs, driveways, and sidewalks within the public right of way must be done by a licensed and bonded contractor under permit from Public Works Sidewalk Section (651-266-6120). Sidewalk grades must be carried across driveways.” “Note: If the street is damaged during the implementation of this specification, restoration of asphalt and concrete pavements must be performed by the Public Works Street Maintenance Division. The contractor is responsible for payment to the City for the cost of these restorations. The contractor shall contact Public Works Street Maintenance to set up work order prior to beginning any removals in the street at 651-292-6600. Procedures and unit costs are found in Street Maintenance’s “General Requirements – All Restorations” and are available at the permit office.”	- Same requirements as Rehabilitation
City Curb/Apron/Sidewalk (continued)		

Masonry (Division	Rehabilitation	New Construction
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4)		
Foundation Walls	<ul style="list-style-type: none"> - Tuckpoint the interior and exterior of existing foundation walls - Ensure moisture protection through parge coat and/or 2 coats of waterproofing masonry paint, depending on type and condition of foundation wall 	<ul style="list-style-type: none"> - If remains of a foundation exist on an otherwise vacant lot, demolish remains and build a new foundation - Ensure moisture protection for new foundations through parge coat of waterproofing masonry paint
Chimneys	<ul style="list-style-type: none"> - Remove chimneys that have no functional or historic purpose and patch roof or reframe area - Tuckpoint chimneys that have a functional or historic purpose 	- N/A for New Construction
Glass Block Windows	- Glass unit masonry window with vent for basement windows and bathroom windows located in shower	- Same requirement as Rehabilitation

Metals (Division 5)	Rehabilitation	New Construction
Decorative Metal Railings	- Provide metal handrails for concrete stairs	- Same requirement as Rehabilitation

Woods, Plastics, and Composites (Division 6)	Rehabilitation	New Construction
ROUGH CARPENTRY		
Garage	<ul style="list-style-type: none"> - 1-1/2 car garage is permissible when site constraints are present - Detached, two-car garage is preferred, - Attached garages shall include ventilation separation from home and CO monitor - Note code requirement for fire rated walls when garages are within 5' of another structure: it is preferable to space garages to avoid fire rating 	- Same requirement as Rehabilitation
See http://www.stpaul.gov/DocumentView.aspx?DID=1522 for more information about garage construction requirements		
Rough Framing	- 2x4 construction for interior walls, 2x6 construction for walls with plumbing or sewer stacks	- Same requirement as Rehabilitation
Fire Blocking	- Inspect code compliance reports carefully to ensure fire blocking requirements are addressed	- Ensure fire blocking is done to code
FINISH CARPENTRY		
Trim Work	- Each room shall consist of matching base board,	- Each room shall

<p>Trim Work (continued)</p>	<p>window, and door trim</p> <ul style="list-style-type: none"> - Existing wood trim and molding shall be saved and restored whenever possible - Painted trim shall be restored to smooth, like new appearance. Significantly gouged, deteriorated, or poor quality trim that cannot be restored to like new appearance should be replaced with paint grade quality trim boards of a like character to existing trim or to match time period of house - Crown molding is permissible for kitchen cabinets -Include finishing of trim in Division 9 	<p>consist of matching base board, window, and door trim</p> <ul style="list-style-type: none"> - Crown molding is permissible for kitchen cabinets - Include finishing of trim in Division 9
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Thermal Insulation/Moisture Protection (Division 7)	Rehabilitation	New Construction
Seal all by-passes	<ul style="list-style-type: none"> - Seal to meet or exceed specified air sealing by the ENERGY STAR auditor 	<ul style="list-style-type: none"> - Same requirement as Rehabilitation
Insulation	<ul style="list-style-type: none"> - Insulate to meet or exceed to recommended r-value and insulating product specified by the ENERGY STAR auditor - Ensure use of Xcel Energy qualified insulation subcontractor or supervision from Xcel Energy qualified general contractor 	<ul style="list-style-type: none"> - Same requirement as Rehabilitation
Weather Barrier	<ul style="list-style-type: none"> - Weather barrier membrane, seam tape, flashing, and fasteners according to code 	<ul style="list-style-type: none"> - Same requirement as Rehabilitation
Siding	<ul style="list-style-type: none"> - Replace asbestos siding wherever present - Replace vinyl siding when more than 10% of vinyl is damaged or color matching will be a challenge, cement board siding is preferred replacement material (include cement board corner boards) - Ensure that any treatment meets lead abatement requirements if lead is present 	<ul style="list-style-type: none"> - Siding material with an expected lifespan that exceeds 20 years is preferred for new construction
<p>Window and Door Trim</p> <p>Window and Door Trim (continued)</p>	<ul style="list-style-type: none"> - Wrap existing window and door trim with aluminum when historic features are not a consideration 	<ul style="list-style-type: none"> - Specify colors to complement house body - If house is in a historic district, specify window and door trim to match neighborhood

		character
Roofing	<ul style="list-style-type: none"> - Replace roof that is 10 years or older or that will have questionable ability to last 20+ years - Ensure installation of water and ice shield and replace all flashing as component of roof replacement - Shingles with a 30 year expected lifespan - Note special requirements in historic districts for roofing material, color, etc. if applicable 	<ul style="list-style-type: none"> - Shingles with a 30 year expected lifespan are preferred - Note special requirements in historic districts for roofing material, color, etc. if applicable - Ensure installation of water and ice shield
Gutters	<ul style="list-style-type: none"> - Install seamless gutter with leaf guard, downspouts, splash blocks, that divert water at least 3' and preferably 6' from foundation - Do not locate downspouts on a street-facing façade of the building - Preferred: coordinate gutters to complement installation of rain garden on site 	<ul style="list-style-type: none"> - Same requirements as Rehabilitation - Preferred: coordinate gutters to complement installation of rain garden on site

Openings (Division 8)	Rehabilitation	New Construction
Exterior Doors	<ul style="list-style-type: none"> - Provide full or half view windows with window blind in door glass for rear door - Provide door with decorative glass or window high on door for front entry - Weatherize per energy auditor specifications 	<ul style="list-style-type: none"> - Same requirements as rehabilitation
Interior Doors	<ul style="list-style-type: none"> - Replace interior doors that cannot be repaired to like new condition, replacement doors shall match the style of existing doors - When all doors are replaced, match replacement doors to the style of trim in the house - All interior doors shall be solid core and have some panel detail (number of panels dependent upon house character) 	<ul style="list-style-type: none"> - Ensure all interior doors are of the same style and match the style of the trim in the house - All interior doors shall be solid core
Closet Doors	<ul style="list-style-type: none"> - Preferred: utilize interior hinged doors as closet doors when feasible, bi-fold doors are acceptable when conditions are present that make a hinged door impractical 	<ul style="list-style-type: none"> - Interior hinged closet doors required
Door Hardware	<ul style="list-style-type: none"> - Existing hardware may remain if it latches securely, matches throughout the house, and is in clean, like new condition - Replace door hinges that do not match door handles/knobs - Lever style door handles are preferred when all door handles in home require replacement 	<ul style="list-style-type: none"> - All door hardware should match (hinges, handles, etc.) and match character of the house - Lever style door handles are

		preferred throughout
Windows	<ul style="list-style-type: none"> - Replace poor condition or lead based paint positive windows with ENERGY STAR rated low-E insulated double pane windows - Fully encapsulate window jamb if lead based paint is present - Provide sash locks and lift for all window units - Note special requirements in historic homes/districts when applicable - Ensure window in each bedroom meets egress policy of 20” in width, 24” in height, and at least 5 square feet of glazed area, with finished sill height of no more than 48” - Modify window opening as needed in otherwise code compliant bedrooms (at least 72 sq. ft. floor area) to ensure egress standard is met. 	<ul style="list-style-type: none"> - ENERGY STAR rated low-E insulated double pane windows preferred - Provide sash locks and lift for all window units - Note special requirements in historic districts when applicable - Ensure window in each bedroom meets egress policy of 20” in width, 24” in height, and at least 5 square feet of glazed area, with finished sill height of no more than 48” - Modify window opening as needed in otherwise code compliant bedrooms (at least 72 sq. ft. floor area) to ensure egress standard is met.
<p>*See the City of Saint Paul Department of Safety and Inspection policy on egress windows http://www.stpaul.gov/DocumentCenter/Home/View/1524</p>		

Finishing Materials (Division 9)	Rehabilitation	New Construction
Flooring		
Ceramic Tile	- 50% recycled content, Floorscore, Green Seal, or other third party certification	- Same requirement as Rehabilitation
Marmoleum	- 2.0 mm thick sheet, Floorscore, Green Seal, or other third party certification	- Same requirement as Rehabilitation
Carpet	- Soft nylon with stain protection, bcf texture carpet, 40 oz. weight, 1/10 gauge - Floorscore, Green Seal, or other third party certification	- Same requirements as Rehabilitation
Wood Laminate	- Floorscore, Green Seal, or other third party certification	- Same requirement as Rehabilitation
Hardwood	- Refinish existing hardwood floors whenever present - If installing new hardwood floors, utilize	- If installing new hardwood floors, utilize alternate to

Hardwood (continued)	alternate to clearly communicate price difference with laminate flooring - Ensure that new hardwood flooring is Floorscore, Green Seal, or other third party certification	clearly communicate price difference with laminate flooring - Ensure that new hardwood flooring is Floorscore, Green Seal, or other third party certification
Vinyl	- Not preferred , unless there is a defensible justification for installation	- Same requirement as Rehabilitation
Wall/Ceiling Finishes		
Drywall/Plaster	- Repair: if walls are generally smooth or have minor cracking, specify tape and mud or plaster repair - Skim Coat: if there are significant cracks, irregularities, or easily removable texture on the wall and it is in sound condition, skim coat the wall - Replace with new drywall: if the drywall/plaster is not in sound condition, there are several coats of wall papers or texture that are not easily removable, then demolish the existing surface and replace with drywall* - Replace paper-backed gypsum board where wet surface is likely with paperless gypsum board that tolerates moist conditions	- Use paperless gypsum board that tolerates moist conditions where a wet surface is likely - A smooth finish is preferred for New Construction
*Note: in compliance with HRA program policies, if all drywall/plaster surfaces in a house are removed on exterior walls, the higher energy performance of “ENERGY STAR qualified New Homes” will apply. “ENERGY STAR qualified New Homes” is required for New Construction. Consult closely with assigned HRA project manager to understand program requirements.		
Low VOC caulk/sealant	- Required throughout	- Same requirement as Rehabilitation
Best grade, No VOC paint	- No VOC paint is preferred - Exterior paint: ensure door and window trim (trim color), house body (body color), and entry door (accent color) each has complementary color	- Same requirements as Rehabilitation
Knockdown Finish	- Apply knockdown finish on ceilings and/or walls when smooth finish will be challenging to achieve - It is preferred to avoid knockdown finish on walls - No knockdown finish or texture is allowable in kitchen or bathroom	- Knockdown finish is not preferred for New Construction
Lead Paint Encapsulation	- HUD approved encapsulating paint is required when painting lead positive surfaces - Ensure all lead based paint positive surfaces that are not removed or enclosed receive an encapsulating paint application	- N/A for New Construction
Wood Finishes	- Low VOC stains and polyurethane is preferred	- Same requirement as Rehabilitation

Ceramic Tile	- All tub surrounds shall be ceramic tile	- Same requirement as Rehabilitation
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Equipment (Division 11)	Rehabilitation	New Construction
Appliances	<ul style="list-style-type: none"> - Stainless steel appliances preferred - Dishwasher: 24" 2 cycle, built-in ENERGY STAR labeled dishwasher must be CEE Tier 2 or higher, with a minimum Energy Factor of 0.68 or greater, and a maximum annual energy use of 325 kilowatt hours or less (plumbing supply in Division 15, Electric supply in Division 16) - Refrigerator: 21 cu ft. with icemaker, ENERGY STAR labeled (Electric supply in Division 16) - Microhood: Must be vented to exterior and sized to fit over range (Venting in Division 15, Electric supply in Division 16) - Clothes Washer: ENERGY STAR rated, full sized, clothes washer, must have a Modified Energy Factor (MEF) of 2.0 or greater and Water Factor (WF) of 6.0 or lower, include all set up, water and drain hoses, leave unit ready to use, front load preferred (Plumbing supply Division 15, Electric supply Division 16) - Clothes Dryer: High efficiency gas dryer with a 7.0 cubic ft. capacity, a sensor dry system, and 5 temperature levels - High, Medium High, Medium, Low, Ultra Low (Venting, Gas supply in Division 15) 	- Same requirements as Rehabilitation
Overhead Garage Door Opener	- Provide automatic overhead garage door opener with two remotes	- Same requirement as Rehabilitation

Furnishings (Division 12)	Rehabilitation	New Construction
Cabinets	<ul style="list-style-type: none"> - Plywood box construction, solid wood face and frame, dovetail drawer joinery, maple cabinets - Provide knobs and pulls for all cabinets, even when finger grooves exist - Match all knobs and pulls to door hardware as closely as possible - Include crown molding for cabinets when they are not installed flush with the ceiling - In small kitchens (less than 90 sq. ft.) utilize higher wall cabinets or floor to ceiling utility cabinets to maximize storage space 	- Same requirements as Rehabilitation
Cabinets (continued)		
½ Bath Furnishings	- Towel ring or bar, toilet paper holder (minimum)	- Same requirement as Rehabilitation
¾ Bath Furnishings	- Towel ring or bar, toilet paper holder, towel bar,	- Same requirement

	soap dish in shower (minimum)	as Rehabilitation
Full Bath Furnishings	- Towel ring or bar, toilet paper holder, 2 towel bars, soap dish in shower (minimum)	- Same requirement as Rehabilitation
Address/Mailbox	- Address numbers meeting code requirement on garage and house - Address numbers are preferred on backer board centered above door at front entry as space constraints allow - New, rustproof mailbox (specify make/model in scope)	- Same requirements as Rehabilitation

Plumbing (Division 22)	Rehabilitation	New Construction
Rough Plumbing		
Waste and Vent	- Ensure all plumbing is properly vented	- Same requirement as Rehabilitation
Water Heater	- If boiler is heating system, provide side arm water heater that operates in conjunction with boiler - If forced air heating system, provide water heater insulated per energy auditor specified efficiency recommendations	- N/A for New Construction (<i>see Division 23</i>)
Water Service Water Service (continued)	- Provide water service for all equipment installed, update system to code requirements - Replace all galvanized steel with pex or equivalent - It is preferred to “stack” plumbing as much as possible - It is preferred to locate plumbing chases within conditioned, non-exterior wall cavities - If water meter is located in pit, raise out of pit and fill in hole (see Concrete Division 3) - Air test system and ensure proper function per code requirements	- Provide water service for all equipment installed, update system to code requirements - It is preferred to “stack” plumbing as much as possible - It is preferred to locate plumbing chases within conditioned, non-exterior wall cavities - Air test system and ensure proper function per code requirements
Exterior Hose Bibb	- Ensure one exterior hose bibb with frost protection, caulked and connected to house	- Same requirement as Rehabilitation
Plumbing Fixtures		
Faucets/Fixtures	- Replace all faucets with low flow 1.3 gpm or less fixtures or install aerator to reduce water flow if existing faucet is in good condition	- Facuets with low flow 1.3 gpm or less are required
Kitchen Sink	- Double bowl, 9” depth, stainless steel sink preferred	- Same requirement as Rehabilitation
Vanity Top	- Provide splash blocks when vanity abuts wall	- Same requirements as

		Rehabilitation
Toilet Toilet (continued)	- Replace existing toilets with low flow, 1.2 gpf or less	- Low flow, 1.2 gpf or less required
Sewer/system clean out	- Ensure sewer/floor drains are snaked and properly functioning at the end of construction	- Same requirement for New Construction
Gas Service	- Provide gas service for all equipment installed, update system to code requirements - If existing system will remain, include statement about testing system to ensure proper function per code requirement	- Provide gas service for all equipment installed, per code requirements

Heating, Ventilation, and Air Conditioning (Division 23)	Rehabilitation	New Construction
Heating	- Provide heating system per energy auditor efficiency recommendations	- Forced air heating systems are preferred for new construction and should meet an efficiency rating of 95% AFUE
Air Conditioning	- Preferred: provide for houses with forced air heating per energy auditor efficiency recommendations, preferred for houses with forced air and with boiler heating systems	- Provide for houses per energy auditor efficiency recommendations - Ensure system meets the guidelines to achieve ENERGY STAR Qualified Home certification
Ventilation	- Provide ventilation for bath fan, stove, clothes dryer to exterior of house and provide roof ventilation per energy auditor specifications	- Same requirement as Rehabilitation
*Ensure testing and verification that all systems are in proper working condition upon construction completion		

Electrical (Division 26)	Rehabilitation	New Construction
Circuit Panel	- 100 AMP service minimum - Service should allow for expansion of added circuits - Include circuit breakers and dedicated circuit for major appliances such as refrigerator, washer, dryer, furnace	- Same requirements as Rehabilitation
Outlets	- <u>Grounded, 3-prong outlets throughout</u> - GFCI protection per code in bathrooms and	- Same requirement as Rehabilitation

	kitchen - Ensure one exterior outlet with outlet cover close to front or rear entry doors	
Receptacles/Covers Receptacles/Covers (continued)	- Replace switches, switch plates, outlets, and receptacle plates that are in poor condition throughout the house	- Same requirement as Rehabilitation
Lighting	- Light fixtures to match throughout house - Ensure all lights have CFL bulbs - When bulbs are visible in fixture, install globe style CFL - Ensure minimum of: 2-bulb fixture in all rooms, vanity light sized to vanity, exterior light at all entry doors, motion sensor on garage	- Same requirements as Rehabilitation
Solar rough in	- It is permissible to provide hook up for future solar panels as an alternate, to help HRA staff evaluate cost of installation	- Same as Rehabilitation
Door Bell	- Ensure operable door bell and chime at front entry	- Same requirement as Rehabilitation

Electronic Safety and Security (Division 28)	Rehabilitation	New Construction
Alarm/CO detector	- Provide new combination smoke and CO detectors per code	- Same requirement as Rehabilitation

Earthwork (Division 31)	Rehabilitation	New Construction
Grading	- Ensure drainage away from foundation (at least 1' to 4' away from building and drainage into rain gardens per site plan	- Same requirement as Rehabilitation

Exterior Improvements (Division 32)	Rehabilitation	New Construction
Fences and Gates Fences and Gates (continued)	- 6' privacy fences are allowable when screening is needed in rear or side yards due to a significant market concern at a neighboring property or other defensible cause	- Same requirement as Rehabilitation
*See Saint Paul Municipal Code or http://www.stpaul.gov/DocumentView.aspx?DID=1529 for all fencing requirements		
Sod	- It is preferred to till and re-sod the entire yard - If existing turf is in very good condition, it is acceptable to replace sod in disturbed areas only up to a natural break (i.e. all sod in side yard, all sod in front yard) - Overseed remainder of yard and ensure that	- Entire lot to receive sod

	transition from new sod to existing grass is seamless	
Planting	*Developers are encouraged to engage Capitol Region Watershed District (CRWD), who will provide free landscape design and contribution toward cost of rain garden installation *See plant recommendations developed by CRWD and Saint Paul Forestry	
Retaining Wall	- Avoid when possible - It is preferable to leave the yard sloped and install plants/mulch to avoid future maintenance costs for a homeowner - If over 2' height, include drawing of proper installation	- Same requirements as Rehabilitation
Sidewalk	- Ensure functional 3' wide sidewalk from front sidewalk to front door, from front door to rear door, and from rear door to garage - Replace sidewalk panels or entire sidewalk when deteriorated or when grading is necessary	- Ensure functional 3' wide sidewalk from front sidewalk to front door, from front door to rear door, and from rear door to garage
Stoop/Stairs	- Provide from front sidewalk to finished grade at front door or to replace existing stoop/stairs - Can either be wood or concrete at all landings - Ensure inclusion of metal handrail in Division 5	- Same requirements as Rehabilitation

Improvements that are not typical and require approval from HRA project manager:

- New backyard decks or patios
- New fireplaces
- Finishing unfinished basements
- Finishing unfinished attics
- Solar panels or solar water heater
- Radiant in floor heat
- Vinyl flooring
- Granite countertops

Improvements that are not permissible include:

- Hot tubs, saunas, swimming pools, or similar luxury improvements
- Mahogany, walnut, cherry, or similar luxury grade wood cabinets, floors, and doors
- Luxury grade lighting exceeding \$100 per fixture
- Luxury landscaping such as paver patios, in-ground fireplaces, outdoor kitchens, or extensive landscaping lighting
- Garage or outbuildings that exceed basic code requirements or are larger than 3 stalls
- Additions to existing houses

Landscaping Design Guidelines

These design guidelines were cooperatively created with the Capital Region Watershed District, Saint Paul Forestry Department, and Saint Paul Planning and Economic Development Department to achieve stormwater retention, tree canopy, and neighborhood stabilization objectives detailed in the Saint Paul Comprehensive Plan.

Developers are encouraged to engage the Capital Region Watershed District to conduct landscape designs.

Benefits include:

- Complimentary landscape design created by landscape architect in consultation with developer
- Rebate of up to \$1,000 for materials needed to achieve raingarden installation on site (at least one raingarden required for rebate to apply)
- Coordination with Saint Paul Forestry Department to select trees that are best suited for individual site conditions

Mandatory Design objectives:

- 50% or more of areas designated for landscaping (non-sod areas) will be planted with native plants
- The first ½” of rain events will be filtered through rain gardens; when possible all stormwater for a one-year storm event will be filtered through raingardens
- Curb appeal will be enhanced through foundation plantings or rain gardens in the front yard
- Sod for children to play will be provided in side and/or rear yards
- Spaces that are challenging to mow (i.e. between sidewalk and foundation, slopes, etc.) will have a garden bed (preferred) or no-mow grass solution
- Plants selected will be low maintenance and high impact, with a showy element of large blooms or seasonal color
- Garden beds should utilize “cues of care” design principles to indicate garden beds are planned spaces

Site Plans:

- Existing Conditions/Grading Plan
 - Show impervious surfaces: sidewalk, driveways, buildings, porches, decks
 - Show existing trees or large shrubs – indicate whether they will remain or be removed
 - For trees that will remain, indicate tree protection zones to protect roots from damage caused by regrading (cut or fill) or compaction caused by construction equipment or the storage of construction materials and exclude these activities from the tree protection zone.
 - Show garden beds that will be removed
 - State if any additional items will be removed (i.e. pavers, fences, etc.)
- Improvements
 - Show impervious surfaces: sidewalk, driveways, buildings, porches, decks
 - Show locations of garden beds, include plant locations by type
 - Shade or indicate areas that will receive new sod (generally all areas significantly regarded up to a natural “break” in the landscape such as sidewalks, garden beds, or fences will receive new sod).
 - Include plant schedule that states the quantity, name, and size of each plant
 - Show site grades if any regrading is required
 - Show location of downspouts
 - Raingarden design should include location, size, source of water, and plant locations by type
 - Show edging or retaining walls, if provided

- List instructions for how to achieve planting and include a side section of a typical rain garden
- Include 1-2 trees per site if none are currently present; consider a tree in the rain garden if feasible and visually appealing

Plant selection:

- Each site will have at least one, preferably two, healthy trees
- There should be 3-6 different types of plants on each site (not including trees)
- Each garden should be defined with mature plants (size #1 or above)
- Plugs are acceptable in rain gardens, side yards, or back yard to fill in a garden space in order to meet budget constraints. Plugs should be used minimally or not at all in front garden beds in order to achieve the curb appeal objective
- Plants shall be selected from the attached approved plant list
- Trees must be spaced to limit future maintenance issues: at least 10' from houses or garages or more depending on the width of the tree canopy

Perennials

- *Butterfly Milkweed
- *Purple Coneflower
- *Coral Bells
- *Blue Flag Iris
- *Copper Iris
- *Peony
- *Smooth Phlox
- *Orange Coneflower 'Goldsturm'
- *Autumn Joy Sedum
- Columbine
- Lady Fern
- Spiderwort
- Purple Dome Aster
- Solomon's Seal
- Hosta

Shrubs

- *Dwarf Bush Honeysuckle
- *Smooth Hydrangea
- Spirea
- American Arborvitae
- Black Chokeberry
- Winterberry

Shrubs for Screening Adjacent Property

Only recommended when screening adjacent property is needed: typically grow up to 12' tall, maintenance should be considered.

- Red osier dogwood
- Viburnum lentago
- Compact American Highbush Cranberry
- Forsythia (nn - but showy)

Grasses

- *Prairie Dropseed
- Pennsylvania Sedge
- Long-beaked Sedge
- Sprengel's Sedge
- Blue grama
- Sideoats grama
- Junegrass
- *Little Bluestem

Trees

Small-up to 20'

- Hawthorne, Thornless
- *Pagoda Dogwood
- Snow Mantle Dogwood
- *Viburnum, Nannyberry Tree
- Crabapple- *limit use, widely planted on boulevard*

Small-up to 30'

- *Serviceberry, Autumn Brilliance
- Blue Beech-Carpinus
- Cherry-Spring Wonder (nn)
- Birch-Dakota Pinnacle (nn)
- Crabapple- *limit use, widely planted on boulevard*
- Japanese Tree Lilac-*limit use, widely planted on boulevard*

Medium to 40'

- Regal Prince oak-tall but narrow
- Alder, Prairie Horizon (nn)
- Honeylocust, Northern Acclaim- *limit use, widely planted on boulevard*

Large

- *Birch, River
- Birch, Prairie Dream paper birch
- Kentucky coffee tree
- Bur oak
- Red oak
- Balsam Poplar
- White pine
- Honey locust, Skyline – *limit use, widely planted on boulevard*
- Basswood, Sentry Linden – *limit use, widely planted on boulevard*

(nn)= non-native

(*) = preferred